The Scalpel, the Sword

The Story of Dr Norman Bethune

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by

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Revised 1971 1973

Monthly Review Press
New York and London

Library of Congress Cataloging in Publication Data

Allan, Ted
The scalpel, the sword.

1 Bethune, Norman. I Gordon, Sydney joint author II. Title. [DNLM 1 Surgery—History WZ100 B563A 1973]
R464.B4A6 1974 617.092 4 [B] 73-21897
ISBN 0-85345-301-2
ISBN 0-85345-302-0 (pbk.)

Revised editions 1971 1973
First Printing

Monthly Review Press
62 West 14th Street New York, N.Y. 10011
33/37 Moreland Street, London E.C. 1

Manufactured in the United States of America

Contents

Foreword to the Revised Edition

In the 20 years since its first appearance in Canada and the United States *The Scalpel, the Sword* has made its way round the world. It has been published in a score of languages, ranging from Hebrew to Chinese. We can no longer say how many millions of people on all the continents have read it.

Dr Norman Bethune, his life and his work, have been accepted as part of their own heritage by North American students, British workers, German medical men, Italian intellectuals, by masses of the dispossessed in India, by African freedom fighters, by the millions of China.

What is the reason for the tremendous impact Bethune's life story has had all over the world? The answer can best be sought in the book itself. But certain preliminary points can be made here.

Bethune was a unique Canadian, a unique human being, yet he was also shaped both by his country and the contemporary world. He was truly a neo-Renaissance figure, driven by the necessity to experience and enrich all of life. To him, encrusted conventions were silly; love, a great hunger and an affirmation of life; medicine and surgery, his art, his work, his commitment; the growing brutality in our world, a personal wound. At the end, his confrontation with death as a surgeon soldier-partisan was a natural response to the cry of the starving, the downtrodden, the brave on all the battlefields of freedom.

He was a man who achieved painful consciousness of his weaknesses. But instead of succumbing to them, he reached greatness in vanquishing them. He turned his back on his life as a sybarite, a roisterer, a darling of women and became the front line doctor, the guerrilla in bast shoes, the revolutionary for whom life was comradeship with the people, a few handfuls of rice per day, and surgery performed in the midst of bloody and now

famous battles. He found his final, indestructible strength in his vast dream of remaking the world At the end, his personal life merged with the fate of the world's peoples. Today wherever their cause has triumphed, he is honored. Wherever it still has to be won, he is a banner a call to arms.

A word on the book itself

This new edition for the United States confronted the authors with the question of amplification and revision Unfortunately it has turned out to be impossible to undertake that work in depth. We have found that the 20 years since the first edition have not only produced many new realignments in the world they have also created divergent views on a number of questions between the authors themselves. To achieve unanimity on many aspects of the work of revision, we found, would have required more time than the pace of the world has granted us. It is our view that presenting the story of Dr Bethune to a new and wider public was more important than waiting until we could agree on how every "i" should be dotted, and every "t" crossed, and every evaluation revised with the wisdom of hindsight. The reader will make his own judgments, and Bethune's own life and ideas are in any event his most eloquent testimonials.

We have, of course, included a number of obvious revisions dictated, and made possible, by new information. And we are cheered by the fact that this presentation of Bethune's story like Bethune himself, has only been confirmed by the history of the last two decades.

—The Authors
1973

Preface

In comparison with the human world of past times, our world is highly complex. Because of its highly developed communications, events in every part of the globe and of human society are closely interconnected. There are no isolated disasters and there is no progress that does not help the progress of all.

This situation is reflected in the minds of men. The contents of men's minds have also become world-wide in scope and complexity. It is not enough for a man, seeking the welfare of his own people and country to consider his domestic situation in relation to his immediate neighbors. World trends encompass every one of us, and it is by participating in them and contributing to them that we influence our own future. The highest task before men's minds today is to understand, to fight against the forces of regression and death, to strengthen and convert into reality the possibilities which our world offers, as no previous world has offered, for a fuller life for all men.

The hero in any age is one who carries out with a surpassing degree of devotion, determination, courage, and skill the main tasks with which his times challenge every man. Today these tasks are world-wide, and the contemporary hero — whether he works at home or in a foreign land — is a world hero, not only in historical retrospect but now.

Norman Bethune was such a hero. He lived, worked and fought in three countries — in Canada, which was his native land, in Spain, where forward-looking men of all nations flocked to fight in the first great people's resistance to the darkness of Nazism and fascism, and in China, where he helped our guerrilla armies to capture and build new bases of national freedom and democracy in territory which the military fascists of Japan fondly hoped they had conquered, and where he helped us forge the mighty people's army which finally liberated all China. In a special sense

he belongs to the peoples of these three countries. In a larger sense he belongs to all who fight against oppression of nations and of peoples.

Norman Bethune was a doctor and he fought with and within his profession with the weapons he knew best. He was an expert and a pioneer in his own science—he kept his weapons sharp and fresh. And he devoted his great skill, consciously and consistently to the vanguards of the struggle against fascism and imperialism. To him fascism was the disease holding a greater evil for mankind than any other a plague that destroys minds and bodies by tens of millions, and by denying the value of man also denies the value of all the sciences which have arisen to minister to man's health, vigor and growth.

The value of the techniques Norman Bethune taught his Chinese students under Japanese gunfire was determined by the purpose for which they were used. Germany and Japan were countries of high technical development, but because they were led by enemies of human progress their science and their skills brought only misfortune to mankind. Fighters for the people have the duty of attaining the highest technical skill, because only in their hands can technique really serve man.

Dr Bethune was the first medical man to bring blood banks to the battlefields, and his transfusions saved the lives of hundreds of fighters for the Spanish Republic. In China he launched and practiced the slogan, "Doctors! Go to the wounded! Do not wait for them to come to you In an environment totally different, and far more backward than that of Spain, *he organized a procedure of guerrilla medical service* which saved tens of thousands of our best and bravest. His plans and practice were based not only on medical science and experience, but also on military and political study and experience on the fronts of the people's war Bethune in Spain and China was a pioneer in the battlefield of medicine.

He understood thoroughly the conditions, strategy tactics and terrain of the struggle, and he knew what could be expected of medical workers who were free men, fighting beside other free men for their homes and their future. The doctors, nurses and orderlies wh[illegible]he trained learned to regard themselves not only as technical a[illegible] t as front-line soldiers, with tasks as responsib[illegible]nd import[illegible] fighting branches.

These things Dr. Bethune accomplished amid conditions such as no medical man without a broad understanding of his tasks could possibly have coped with. He accomplished them in mountain villages in the most primitive parts of China, almost without any previous knowledge of the language, of the people among whom he worked, and without any strength in his own tuberculosis-ravaged body apart from his burning conviction and iron will.

His broad world understanding, the sources of power that he drew from it, were the things that give his work more universal meaning for our time than that of other medical heroes who labored against similar heart-breaking conditions, such as Father Damien or Dr. Grenfell in Labrador.

What killed Dr. Bethune? Dr. Bethune fell in the fight against fascism and reaction to which he had given his passion, skill and strength. The region in which he worked was not only blockaded by the Japanese enemy. It was blockaded also by Chiang Kai-shek's reactionary government which had always been ready to compromise victory rather than fight a people's war. The men whom Bethune fought for were adjudged unworthy not only of arms and ammunition but even of medical supplies to heal their wounded. They died of infections because they could not receive modern antidotes.

Bethune died of septicemia, the result of operating without rubber gloves and of having no sulfa drugs for treatment.

The International Peace Hospitals which Dr. Bethune founded now work under new conditions—China, at last, is free. But after Bethune died his appointed successor, Dr. Kisch, who worked beside him in Spain, was prevented by Chiang Kai-shek's blockade from assuming his post. Dr. Kotnis of the Indian Medical Units, who finally took up the directorship of one of Dr. Bethune's hospitals and valiantly carried on his work, also died at his post—again because there were no drugs on hand to treat him. Dr. Bethune and Dr. Kotnis were two among many victims, who, were it not for the blockade, might still be living and fighting in the cause of the world's free peoples.

I am very happy to introduce the life of Dr. Norman Bethune to greater numbers of people than have hitherto been able to acquaint themselves

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PART ONE

Death and Birth

with the life of this hero of our time, who symbolizes so nobly the common stake of all people in the fight for freedom. His life, death and heritage have been particularly close to me, not only because of the great services he performed in our peoples' war of national liberation, but also because of my own activity in the China Welfare League of which I am chairman. The League has been directed toward securing support for the Bethune Peace Hospital and Bethune Medical School network that carries on his work and his memory

The new China will never forget Dr Bethune. He was one of those who helped us become free. His work and his memory will remain with us forever

SOONG CHING-LING (MADAME SUN YAT-SEN)

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SOONG CHING-LING (MADAME SUN YAT-SEN)

I

Hopei North China.

THEY BROUGHT HIM out of the hills over the twisting, narrow passes where the enemy feared to set foot and where the horses no longer led but followed.

They carried him on one of the litters for the wounded. At first he had waved aside the litter-bearers with an angry toss of his head and mounted his brown mare, sitting in the saddle with his left arm dragging. But before they had gone many li from Sky-kissing Peak he had fallen into a dead faint. When he awoke to find himself on a stretcher suspended from two crossbars, moving rhythmically with the motion of the litter-bearers, he only rolled his eyes to look at them and made no protest.

For a day and a night they crawled up and down the mountain waste land of West Hopei, a silent, dogged caravan of men, horses, and mules. By day the November sun was like a great, single eye, filmed over as if with tears, staring at them out of furrowed brows of clouds. At night the stars hung low above the cliffs, as if to touch them with a cold warmth and light their way. By day and by night it seemed they need only reach out to touch the sky. With the sound of artillery still echoing like distant thunder behind them, they made their way through dust, through mists spread out over the hollows like silvery lakes, passes cut out of sheer rock, wild brush where every step was a struggle. Then they broke out of the towering mountains, and stocky Tung Yueh Chian, leading now on the brown mare, raised his hand. They halted, gazing at the broad valley below, and Fong spoke:

"It will be Yellow Stone Village there," he said, pointing, and they began the descent.

ing above them, his arms outstretched to reassure them, his green eyes smiling as always. But as they watched he twisted suddenly in pain, tearing the blankets from him, and they saw the bandages and the path of hideously discolored, swollen flesh reaching to the shoulder.

They fell back with a groan, the children clinging to their elders' legs, the litter-bearers wincing.

Pai Chu En opened his eyes as if from a deep sleep, raised himself up on an elbow and looked about till he saw Tung. He spoke for a while in the strange language that only Tung understood, and fell back wearily again.

Tung dismounted and faced the villagers. "We must stop here," he said heavily. "We are a day and a night from the front without pause. He can travel no farther. He must have rest so that he can defeat his great sickness."

One of the elders stepped forward. He stood before the stretcher and bowed gravely in the traditional Hopei manner. "At first we thought it might be the enemy coming out of the hills, and we were filled with worry," he said. "Then we recognized the brown mare and the litter bearers, and we were filled with joy. Now we are filled with grief. Better that it should have been the enemy, better *Chien Pi Ching Yeh*,[1] better that our homes should now be ashes, and our families scattered in the mountains, than that you should return to us in this suffering."

Pai Chu En turned his head and extended his hand vaguely.

"We must have a suitable place," Tung said, "till we are able to move him again."

The old man rose. "At the house of Yu the landlord. His is the best house in the village."

They followed the stretcher to Yu's courtyard, waiting outside, while the children watched their elders, quick to read the signs on their parents' faces, sensitive to the menace hanging over the valley, the mountains of Hopei, the whole vast world of China, and wondering now at the sorrow more terrible than the enemy that had cast its shadow over the village.

Late in the afternoon there was a second alarm. This time it was a messenger hastening through the mountains from Staff Headquarters.

[1] The slogan of scorched earth.

For an hour they zigzagged down the mountainside until they could clearly see the brown houses of Yellow Stone Village and the tiny figures racing in from the fields. When they reached the valley a crowd had gathered at the northern gate, and as they approached the village a triumphant cheer echoed through the valley

"Pai Chu En! Pai Chu En!"

At the edge of the village the people chanted the name, waving their hands and smiling broadly But as the brown mare reached the gate and the caravan entered, the shouts of welcome died on their lips. With troubled faces they watched Fong, slumped forward in the saddle, his head bowed, pain and defeat in his eyes. They moved apart to let Fong pass, murmuring among themselves. Where was Pai Chu En? Why did the procession enter the village so silently? Why did the litter-bearers walk with their eyes fixed on the ground? Then they saw the stretcher coming slowly through the gate, and their faces grew wrinkled with torment and disbelief.

Tung reined in the mare, the caravan came to a stop, the litter-bearers knelt to lower the stretcher carefully to the ground, hanging their heads as if they felt themselves accountable for their burden.

The villagers slowly assembled about the stretcher Yes, it was Pai Chu En the foreign one, White Seek Grace. Only two weeks ago he had passed like a whirlwind through the village, his proud, white head held high as he galloped before the caravan into the hills. Only two weeks ago he had left for the front, and now he lay before them his head thrown back, his eyes shut, his beard pointing towards the sky They looked on in baffled silence. Yes, it was Pai Chu En, but how could this be — that he should lie here like the dead? In all the liberated areas he had worked his wonders. His face had lit up the villages of Shansi He had blazed his way across the Middle Plain across Hopei and Shensi. He had made fools of the invaders even in the occupied territories. His name had been like a sword against the enemy Could this be?

They looked to Tung for a sign that all would be well, then looked back at Pai Chu En. Surely of all the wonders he had performed he had some still left for himself; surely he would rise up in a moment, straight and erect, with the awe and power of a pillar of fire, his white mane tower

hidden behind the mountains. The first faint sounds of life came from the village.

"How is he now?" Tung asked the question without looking up.

Fong buried his head in his hands. "My heart was filled with gladness that I was able to attend our teacher. Now it has turned to stone. He is very sick and I am helpless." He raised his head. "What shall we tell General Nieh and Mao Tse-tung?"

"He called me his other self," Tung said, "and it seems as if I am dying too. We must go back to him. We must not let him die."

In the courtyard Tung found a rough bench, placed it beneath the window of Pai Chu En's room and took up the vigil.

Night came. A shadow glided through the courtyard. "This is the house where Pai Chu En lies?" a voice whispered.

"Yes." Tung turned to see a young man in the padded blue cotton of the guerrillas.

"We are a detachment of the People's Guard," the soldier said. "We are passing through on our way to Sky-Kissing Peak. In the village they have told us the grief-heavy news. In the name of Pai Chu En we have adopted a resolution of self-sacrifice. Our whole unit has pledged that when we reach the front we will offer ourselves for any duty as an example to the others — self-sacrifice till death, if necessary . . . You will tell Pai Chu En?"

"Yes," Tung said. "I will tell him."

The soldier saluted and marched silently into the night. Then Fong came to sit beside Tung, asking, "Has he called?"

"No," Tung said. "He lies quietly. Once he rose to sit at the table, writing."

"It is strange that he should still have strength to rise, or to sit at the table." Fong sat sunk in thought, looking in at the room bathed in the cherry glow of the *kang* fire. "What would he write now? What is in his mind, I wonder?"

"Perhaps the bitterness of things he remembers," Tung said. "It is a night of many stars, such as always pleased him, and I have heard from him as many memories as there are stars. In the mountains, when the night sky was like the jeweled ceiling of a Buddhist temple, he would

He had set out on direct orders from General Nieh as soon as Headquarters had received the wireless message from the front the day before. The news had caused great consternation, and had been relayed to Mao Tse-tung in Yenan immediately. General Nieh had been instructed in urgent messages from Yenan to keep Chu Teh and Mao Tse-tung informed of all developments, and to spare no cost in the effort to get Pai Chu En safely to Staff Headquarters. Though worn and hungry from his journey the messenger refused food impatiently. "Pai Chu En is ill, and in Wu Tai Shan and Yenan they are waiting for word," he said. "Do you know what our men will say if anything goes wrong, and do you offer me food? I want to see him at once."

Fong led Nieh's representative into the house, thinking it would be good for Pai Chu En to know that the vigil was being kept not only here, beside the *kang*[*] in the house of Yu, not only here in Yellow Stone Village, not only at Sky Kiang Peak, where the men had watched him leave with the sickness upon him, but in all the territories of Chin-Cha-Chi.

The villagers waited for word, but as the hours passed and the two remained in the house, they slipped away. The men returned to the fields, turning often as they worked to shield their eyes from the sun and look back at the village with a preoccupied air. From their meager stores the women brought baskets of chicken, millet pancakes, eggs, vegetables, leaving them at Yu's door. In the single rutted street the children hushed one another at their play. Shou, the "little devil,"[*] crept to Pai Chu En's door, refusing to leave and asking all who went in or out, "Will he be well enough to leave tomorrow? Shall I bring him some food? Can I ask him if he would like some food?"

All through the night Fong remained in the room. In the morning he came out with a distracted look on his long face and made off rapidly through the village. Tung found him outside the village gate, sitting on a rock, gazing vacantly into the distance. Tung squatted silently beside him, tracing patterns in the dusty earth with a stick. The sun was still

[*] A low brick or clay oven which also serves as a bed.

[*] Boys under sixteen who accompanied the Red Army on the "Long March" were nicknamed "little devils."

called Tong would watch over him recalling this, his *first* dying."

There would come a time when he himself would write "It is not given to many men to face death, to learn the truth of one's life in facing death — and then to live. But now he knew only that he was dying, and that all his years had gone to waste. He told himself he didn't give a damn. But why he asked himself, had it happened?

During the long Detroit nights, ghostly with the sounds and lights of the street below his window he tossed between his tortured dreams and bitter wakings, exploring the chaotic pattern of his life, gritting his teeth against remorse and self-pity searching endlessly for the clues to his defeat, and counting the search his only valid last will and testament.

He remembered many faces, cities, hurts, vanities. He remembered home, the war flight to Bohemia, debaucheries and exaltation, work, the thrill of flesh and clay in his hands, love turning moldy fierce yearnings, frenzy despair Where, in the wilderness called living, had he lost his way? And why?

3

THE MANSE, the frame church, the lakes he had loved to swim in, the hills where he had chased butterflies — they were part of Gravenhurst, Ontario, where he was born, and of his childhood.

He remembered them all, and also the legends about the Bethunes who had migrated from northern France to Scotland in the mid-sixteenth century They had been French Huguenots — nonconformists, he often thought with secret satisfaction, even three hundred years ago. For two centuries they gave Scotland doctors, teachers and clergymen, some becoming Hereditary Physicians to the Lords of the Isle of Skye. Then, in the eighteenth century they migrated to Canada, where a Bethune became an Anglican bishop, the first Anglican in a long line of Presbyterians. Another Bethune became a principal of McGill University Still another Norman's grandfather turned to medicine and became one of Toronto's outstanding surgeons.

say to me *My other self these Hopei nights are like the nights I knew when I was a boy in my own country* Always his *other self* And now there was a soldier here from a unit passing through. They go with a resolution of self-sacrifice in the name of Pai Chu En. So they too are his *other selves* "

"*I — you — they* But let us go in We must not leave him any longer "

Tung began to weep, quietly without shame. "I shall come in a moment Forgive my weak tears. They are a spring that will soon run dry It is more bitter for him than for all the others I have seen. If he dies he will be dying the second time. And he is only 49 years old. Do *you understand? Every man dies — so many of our own have died — but* all of us have one life and one passing, and he has had many lives and this is his *second* death. Did you know? — This is the second time he is dying and there are not enough tears in all China to mourn his second passing. "

Fong rose heavily "Not in all China," he said. "No, Comrade Tung, not in all the world will there be enough tears. "

2

Detroit U.S.A — 1926.

HE WAS THIRTY-SIX YEARS OLD, and according to the medical evidence he was dying

He lay in his bed, and considered how it had all started and was now *ending*

History would pass him by without the merest footnote, he told himself not knowing that even in 1926 history was already marshaling great lands *and obscure men for wars, revolts, mass murder heroism* Nor did he know that he would yet taste the rushing darkness of death a second time that some day one quarter of the human race would sing his name as Pai Chu En that in *mountain* wildernesses he had never heard of, a man

he was to win more than ordinary recognition for his powerfully delivered sermons, he refused all calls to wealthy congregations. "The rich," he said, "are too worldly." He would only accept pulpits in communities where he considered the people closer to his precepts of Christian living. As a result, his ministry took the family from one small Ontario town to another in relatively quick succession.

When Norman was two years old the Reverend Malcolm Bethune was transferred to Beaverton, then to Toronto, then, over a period of years, to Aylmer, Blind River, Sault Sainte Marie, Owen Sound and finally back to Toronto again. But for years Norman spent his summers at Gravenhurst. Here, in the Muskoka Lakes, he developed a passion for swimming. Here, too, he showed his first delight with the forests and the summer skies.

Wherever the Bethune family found itself, home life was stimulating, rich and warm. For years a favorite diversion of the family was a word game. As they assembled for supper each child who properly pronounced and defined a new word received a prize of five cents. Norman usually ran off with the prize, but shared his wealth with his older sister and younger brother. Another game that was Norman's alone was the moving of furniture. He loved to rearrange every room according to his own notions of form and color. The family considered him somewhat young to assume the role of interior decorator but patiently indulged his fancies.

From his earliest years his venturesome spirit and his intention of being a surgeon were taken for granted. By the time he was eight he had begun the messy but scientifically necessary job of dissecting flies and chicken bones. Later his personal investigation of anatomy led his mother to an investigation of her own when a dreadful odor suddenly pervaded the house one afternoon. She traced it to the attic, where she found Norman carefully cutting away the flesh from a cow's leg he had just boiled. "What are you doing?" she asked in amazement. Laconically he replied, "I'm getting the flesh off so I can examine the bones. They'll make good specimens." She hurriedly left him to his scientific pursuits and later that day he placed the bones along the fence in the back yard to dry. It was also at the age of eight that he ceremoniously announced that he was no longer to be called Henry but Norman, and hung the brass plate of his surgeon grandfather and namesake on his bedroom door.

He remembered the stories told of his grandfather — of his strong views, unorthodoxy and scientific inclinations — and how the memory had served him as a childhood goal. And he remembered, above all, his father with his passion for the written and spoken word, and his mother combining tenderness and strength with the quiet faith she had always had that he was destined for great things.

At the age of twenty-one, his father Malcolm Nicholson Bethune, had turned his back on the family traditions of medicine, pulpit and teaching for the more worldly pursuit of business. In 1880 he took ship for Hawaii with an older brother Angus, to buy an orange grove and make his fortune. But in Honolulu he met Elizabeth Ann Goodwin, a Presbyterian missionary. The meeting changed his life.

Miss Goodwin was the daughter of an English cabinet-maker.[1] At the age of ten she had distributed religious pamphlets on the streets of her native London. At twenty-one she left England to become a missionary in Hawaii. She was filled with a vast love for mankind, a vast determination to save the heathen and spread the word of Christ. She turned her persuasiveness loose on Malcolm with such overwhelming effects that he was converted to the church of his fathers, returned to Toronto with her blinding vision, and abandoned all thoughts of orange groves and fortunes in a flow of letters to Honolulu asking her to marry him.

His persuasiveness was equal to hers. She soon followed him to Canada and married him.

In 1888 their marriage was doubly climaxed: their first child, Janet, was born, and Malcolm entered Knox College to become a minister. The transformation in his life, begun in Hawaii, was now complete. After he had been ordained he moved his small family to the northern Ontario town of Gravenhurst, where he took over the duties of his first congregation. And here, on a blustery March day in 1890, in the Presbyterian manse, a hundred yards up a dirt road from the clapboard church, Henry Norman Bethune was born — their first son.[2]

As a preacher Malcolm Bethune held strongly personal views. Though

[1] Henry Goodwin.

[2] Their third child, Malcolm, was born three years later.

of the west and laborers to the factories of the east. Across the Great Lakes steamers carried the prize wheat of the prairies to the St. Lawrence River and from the St. Lawrence the rich harvest poured out to ports all over the world. With industry, immigration, expansion came technique, the spur of modernity, increasing involvement in the world scene, the germs of new ideas that soon would disturb the Bethunes and challenge their son.

Among the new ideas the young Bethune was absorbing at college was Darwin's theory of evolution. To his parents Darwinism was synonymous with anti-Christ. They were among Ontario's leading followers of the then well-known Chicago evangelist, Dwight Moody, who fought vigorously against the teaching of evolution in the schools of America. When Mrs. Bethune discovered Darwin's *Origin of Species* among Norman's schoolbooks, she was horrified and took to placing religious tracts between the pages of his scientific books to offset its seeming blasphemy.

For a while Norman read the tracts in good humor, then one night he stole into his parents' bedroom while his mother was asleep and slipped a copy of *Origin of Species* under her pillow. His prank put her forbearance to an impossible test: she burned the book in the kitchen stove. He apologized, but she could discern that it was as the loving son he asked her forgiveness, not as the growing man who was announcing his revolt with typical Puckish humor.

Though they lived comfortably, the salary of a Presbyterian minister was hardly adequate to put two sons through a university. Norman, who years before had earned pocket money by delivering newspapers, now went to work to earn his tuition. He paid for his freshman year by working as a waiter in the university restaurant. Then, in the summer, he got a job as a fireman on a Great Lakes steamer. Next came a stint as a reporter in Windsor, during which he found stringing words together not only easy but exhilarating. For a year he stayed away from the university, earning enough money for the next term by teaching school at Edgely, Ontario. Drumming the three R's into his pupils, some of them older than he, netted him $300. On other occasions he taught a Bible class and worked as a lumberjack in the woods of northern Ontario. Working there broadened his frame and hardened his muscles. He always spoke proudly of his stint

When the family first settled in Toronto he was only seven but he fell in love with the big city. Once, on a shopping tour with his mother he stole away and was brought back by a policeman hours later. His frantic mother asked him what had happened. He smiled mischievously. "I wanted to see what it would be like to be lost. So I went up and told the policeman I was lost. It was fun."

During the next few years his curiosity and love of adventure took on bolder proportions. He managed to transform the bucolic pursuit of butterflies into a dangerous sport. Once, outside of Gravenhurst, he led his younger brother Malcolm, up a steep cliff at the top of which he had spied a butterfly. Halfway up, when the going became rough, he told Malcolm to wait for him. Slipping, clutching rocks, roots, bushes, he pulled himself to the summit as Malcolm cried out in fear and warning. When he came down, the butterfly in his hand, he said breathlessly: "There are two things about catching butterflies, Malcolm. First, there's the catching. Then there's the butterfly itself." Twice, on similar sorties, he fell and broke his leg. At the age of ten, when the family was vacationing on Georgian Bay he watched his father swim across the bay at Honey Harbor. The next day he tried it himself and was saved from drowning by his father who came up in a boat just in time. But the following year Norman swam the harbor.

His father grew increasingly nervous at his son's disregard for danger but the mother's calmer view prevailed. "He must learn to take chances," she said, "so let him do what he wants and learn that way."

His early education was spread over a number of schools and towns, but he finally graduated from the Jesse Ketchum Public School in Toronto and the Owen Sound Collegiate High School. When he was ready for college, the Bethunes moved back to Toronto so that Norman, and Malcolm soon after, would be able to go to the University of Toronto.

New winds were blowing across the oceans to the Dominion. The very year of Norman's birth saw completion of the first railroad linking the vast expanse of Canada. During Norman's childhood, Sir Wilfrid Laurier emerged to express in increasingly articulate terms the country's maturing nationhood. The steel and smoke of industry spread across the country drawing billions of dollars in British and American investments. Great waves of immigration from Europe brought farmers to the empty plains

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He spent the next six months in French and English hospitals, then was invalided home. The war was over for him.

A few weeks later he re-entered the university to take his degree. At graduation he was offered an internship in a Toronto army hospital, but turned it down. He had come home from the wars wondering whether something lay behind the slaughter and wreckage; but he only wondered. He had no answers, not even any clearly defined questionings. All he knew was that others were over there, and no matter what it was all about, he felt a distaste for sitting on the sidelines and a need to be among them.

He enlisted in the British Navy serving as lieutenant-surgeon on H.M.S. *Pegasus* until 1918. Six months before the Armistice he asked for, and was granted, a transfer to the Canadian Flying Corps in France, in which he served as medical officer.

He was in France when Germany surrendered. After the victory celebrations were over he sat in a Paris *bistro* with his friends and wondered with them what would happen now. He was twenty-eight, the first gray hairs had begun prematurely to show at his temples; the locusts had eaten the years of his prime. The war had put a period behind Bethune the student: it now put a question mark before Bethune the man. He suddenly felt aged, baffled — with a vague, burgeoning desire for something new.

As a youth he had known only Canada; as a man he knew only Europe. He had been dispossessed, it occurred to him. There was nothing to return to, nowhere to go: only lost time to be made up. He was part of the disenchantment with which Western novelists were to feed the Western world for the next quarter century. He grew a moustache and had himself demobilized in England.

as a lumberjack, and for years treasured a photo showing him with four "real" lumberjacks, all towering over him, all six feet or more and heavily muscled.

He was now twenty-four. He had his mother's small nose, wide, strong jaw and blond coloring, his father's large forehead and green-blue eyes. "On my mother's side," he would say, "I'm an evangelist. On my father's side I have a compulsion to do, to act." Somewhere along the way he had developed his passion for drawing, painting and sculpture. He had long, powerful hands which were the source of his greatest conceit.

He had also developed a zest for living. The clay that took form in his fingers, the colors that he put on canvas, whatever pleased his eye, the ever-wider horizons opening up before him in the textbooks and lecture halls — all of it was good, youth was good, life was good.

And then the First World War burst across his dreams and plans, as it did for all young men who were twenty-four and avid for the future.

He had one year left before getting his M.D., but he joined the armed forces the day Canada declared war, the tenth man in Toronto to enlist. He left for France as a stretcher-bearer with the 1st Canadian Division Field Ambulance.

In French-Canada there were mutterings against "*their* war." In the streets of Quebec City massed crowds were denouncing "*les impérialistes*" and conscription. But for Bethune, as for most young men in Ontario, there were no doubts, no searchings of conscience. He was carried along by the general excitement and in France there was the thrill of a new land, new people, new sights, and new experiences.

Before long it was no longer *la belle France* but a charnel house. He went among the wounded, carrying maimed men and hulks no longer men, blood on the earth and blood on his hands, apprenticed to death and comrade to those still wanting to live. Away from the politicians' oratory and the exhortations of all the home-front patriots, his mind absorbed the picture of ruin, mud, futility and carnage. He started drinking heavily. In a letter to a friend[1] at home he wrote: "The slaughter has begun to appall me. I've begun to question whether it is worth it. Attached to the

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outward forms of the human body he was also fascinated by its members and inner organs. "My place looked like a bloody butcher shop," he later recalled.

In this "butcher shop" he held court, surrounded by a coterie of young admirers, writers, artists, musicians who gathered nightly to be fascinated by his talk, and by his freely dispensed liquor In the backwash of the war the controversies of the peace, the fears, complacencies and disillusionments of a dislocated world, he defined his philosophy of life to them.

As he regaled his acquaintances with his glib views, men elsewhere were searching for answers to their vast uncertainty much less glibly Along with fads, religious cults, jazz, unpunctuated poetry the names of new prophets had found their way into public consciousness. Some dreamed wistfully of Wilson's Fourteen Points as guides to the new world, some of Fabian socialism, some enthroned the unconscious in the name of Sigmund Freud· some acted under the banner of Karl Marx.

George Bernard Shaw was at the height of his popularity but his plays and his Fabian views managed to escape Bethune s notice. It was no easy feat in the London of the early twenties, but Bethune accomplished it, much to his embarrassment later when he became a Shawdolator

Bethune had his own prophet, almost obscure by then but once a potent literary influence in England. He had been spiritual father to Oscar Wilde. His name was Walter Pater professor author critic, prophet of the senses, tastes, pleasures intellectual hero to many a student in the England of Victoria. He was made to order for Bethune, who now invoked the famous Pater dictum with a vengeance "Not the fruit of experience, but experience itself is the end. To burn always with a hard, gemlike flame, to maintain this ecstasy is success in life.

In the London of the early twenties, Bethune worked hard for success" as defined by Walter Pater.

There was time for the hospital and time for study and time for all-night binges as the young doctor wallowed in the uninhibited atmosphere of postwar London. The idea was to experience everything. The war had taught him that life was cheap and death came fast and there was little time for man to taste everything that life offered.

4

THE INNOCENT ABROAD," he said of himself, later when remembering the postwar London years.

He had arrived in London with nothing but his air force pay soon he was living lavishly "I had no money" he explained, "but love for art. I soon found, to my great amusement that many people with a lot of money knew nothing about art. I put my critical faculties to work."

He put them to work by combing studios, dealers stores and dusty warehouses in France and Spain for things to sell in London at a handsome profit. On his first trip he had a total capital of a hundred pounds, all borrowed from friends. He returned with booty and *objets d'art* which he sold to London art dealers at a net profit of 200 pounds. Whenever the treasury became low he crossed the Channel. For two years he earned enough money this way to buy the best clothes, the best food, the best liquor enormous quantities of books, to lend money to anyone who asked for it, and to keep himself supplied with clay paints and canvas.

His fellow internes at the Hospital for Sick Children and later at the Fever Hospital, unaware of his "business trips," put him down as the heir of some wealthy Canadian rancher He did not try to disabuse them of the illusion because it amused him to think of the simplicity of his home while they imagined he had always been used to a life of opulence. Only the son of a millionaire could show such disdain for money He was making up for all the long years when he had had to save every penny earned to pay his way through college.

He walked the streets, swinging a cane, his mustache and gray temples making him look older than he was, his figure trim in impeccably tailored clothes. He was an impressive sight as he went to and from the Soho flat he shared with an Australian doctor he had met in France. Here, in the heart of Soho, they tried to "out Bohemia Bohemia."

His flat was littered with strange sculpture—plaster hearts, kidneys, brains, coiled intestines, bones, legs, hands and fingers. Along with the

mentioned to her that he planned to study in Europe. Why, she inquired, had he abandoned the plan? The answer seemed simple. He was now a married man, ready to assume the responsibilities of a husband. He would have to postpone some of his plans. But Frances couldn't understand why. She had, she announced, a small inheritance, and saw no reason why he couldn't continue his studies. The small inheritance was news, good news, and he wondered if it wouldn't be a better idea to use part of it to establish an office in London. But Frances wouldn't hear of it. She did not want their marriage interfering with his medical career. So off to Europe they went in the spring of 1924 on a combined honeymoon and study course.

Frances, at 22, was an introvertedly shy and retiring personality. Bethune, at 34, was inordinately outspoken and flamboyant in manner. They loved each other, but their backgrounds clashed. Like so many young upper class women of the period, Frances had what amounted to a pathological fear of the intimacies of marriage. Before long a pattern of frustration, antagonism, and misunderstanding was established between them, threatening the regard and love they had for each other. Bethune's marriage soon became a symbol to him of failure, and the chaotic atmosphere of postwar Europe contributed to his confusion.

His personal frustrations led him to irrational behavior which frightened Frances and led to more withdrawal on her part. It became an unhappy circle of argument and reconciliation, of anger and tenderness, of recriminations and remorse. They left each other innumerable times, and always ended up vowing they couldn't live apart. Always impetuous, his unhappy relationship generated new impetuousness, childish teasing of her love, brooding over misunderstandings, real and imagined. Once he plunged into the English Channel during a raging storm and was almost drowned. He explained to her sheepishly that he had always wanted to swim in the Channel during a storm. To her it seemed he was bent on destroying himself.

Another time, he dared her to jump across a wide ravine which might have meant serious injury or death if she had slipped. She jumped, and then ran back to their hotel and took the first boat to London. He wrote her begging for forgiveness, expressing his dismay at his strange behavior which he himself couldn't understand. When she returned there

In the meantime his mother wrote him regularly urging him to remember the Bible, to go to church and to avoid the pitfalls of sin. He answered dutifully giving her accounts of his progress as an interne

For three years he busied himself with his surgery painting, sculpture, meeting new people, interpreting Pater and accepting the certainty that he would become a great surgeon. It was only a matter of working and waiting At the end of three years he finished his interneship and took a position with a private clinic in London s East End.

"Ah, the fates, the fates," he wrote of this period later "they assumed the form of two women."

The first was Dr Eleanor Dell,[1] wife of a wealthy British industrialist, wealthy in her own right, and head of the East Side clinic at which Bethune worked. Dr Dell became his friend, his sponsor and his benefactor Under her prodding and guidance, he studied hard and prepared for his exams to become a Fellow of the Royal College of Surgeons. To study a young doctor needed money more money than he could earn taking trips to France and Spain. Dr Dell provided the money and Dr Bethune listed the amounts, to be repaid in full. He promised Dr Dell to pursue his studies for two more years in Europe, and then establish himself in London with her help.

In the autumn of 1923 he went to Edinburgh to take his F.R.C.S. exams. There he met the second woman, Frances Campbell Penney "It was love at first *sound*" he was fond of repeating Frances spoke with a soft, musical Edinburgh cadence. Her voice, her beauty and a "remarkable innocence, a remarkable unworldliness, plus a remarkable intelligence," all combined to sweep him off his feet. His dynamic wooing, in turn swept her off her feet, and they were married in London a few months after his exams.

She was 22 at the time, the only daughter of a prominent Edinburgh family an upper-class product of the best finishing schools of England and Europe.

The day after their marriage he announced he was penniless and that he had better prepare to set up in private practice. In Edinburgh, he had

[1] This is pseudonym.

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was a week of mutual tenderness, but it exploded in the conflict of daily frustrations and antagonisms.

Again in Italy, while looking at Giotto's "Life of St. Francis," he experienced something he described as akin to a revelation and decided he wanted to become a monk. The mood left him in Vienna, where he studied under some of the leading surgeons. Then he was sure he could be nothing but a surgeon.

A few weeks later he felt the need for action and excitement, and they went skiing in Switzerland. He was an excellent skier but his need for excitement and action overreached itself and he strained his heart. This necessitated a three weeks' rest in bed. They were the quietest three weeks spent in Europe.

He drank hard, studied hard, lived hard, and within a year helped Frances go through most of her inheritance.

The year wasn't wasted since he had observed the work of the great European surgeons in Paris, Vienna and Berlin, but he always hated to remember it. "I was like some butterfly batting its crazy wings against a light, blinded and stupid, going around in circles, with no purpose in life and no purpose in death."[1]

The honeymoon was a mockery. His marriage was a mockery. His life was a mockery. So it seemed to him when they came to the end of their madcap cavortings about Europe.

5

TWO HUNDRED POUNDS was what remained of Frances's inheritance at the end of a year. It took them to London, from London to Canada and from Canada to Detroit, Michigan.

Why Detroit? Bethune had the answers.

The city just across the Canadian border was bursting with activity. It was already the capital of the automotive industry, a sprawling center of America's mass production industries, a magnet for those seeking op-

[1] Letter to Frances.

portunity, a new Mecca for those filled with the prophecies of Henry Ford. America was rich, and a great torrent of its riches washed through Detroit. America was on the road to prosperity never dreamed of before and Detroit was the promise of the limitless future. In Detroit there was money, work, push, endeavor. There, he told himself, he would have to kiss no one's hand, bend the knee to no British upper-class dowager. It was the man-made frontier of America's glittering future. "Detroit," he said, "is where we shall open our first office."

And so, in the late winter of 1924, Dr. and Mrs. Norman Bethune rented a flat at the corner of Cass and Seldon Streets, with exactly twenty-four dollars between them, old pewter and odd antiques picked up in Europe, assorted art objects and Louis Quatorze chairs. For Frances, Detroit was dreary, dirty, mawkish and disturbing. For Bethune it was the twentieth century, a machine-age citadel where opportunity knocked on every door.

He hung out his grandfather's shingle, and waited for opportunity to knock. He waited a year and only the faintest tappings came.

Bethune had selected the corner of Cass and Seldon Streets because it had seemed to be a busy section of the city. It soon turned out to be even better than he had imagined.

It was then the center of the red-light district, and when he had borrowed a desk, bought a mattress and opened for business, he found himself a fledgling Hippocrates administering to the age-old Magdalen. In the rest of the city industry and commerce grew by leaps and bounds; around Cass and Seldon Streets, prostitution flourished with the times. Patients began slowly to trickle into his office, but it was mainly the prostitutes who were able to pay.

In his bare office Bethune learned a lesson seldom mentioned in his medical courses at Toronto, London, Vienna and Berlin: those who most needed his services were those who could least afford to pay for them.

By a stroke of luck he was called in by the corner grocer one day to look at his wife. The woman had a repulsively swollen leg, and the grocer explained frantically that a doctor had declared it had to be amputated. Bethune incised the affected area, kept draining the pus under close

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can I do for a prostitute, when her problem is not really that she is diseased, but that she is a prostitute?" He passed the blame on to the world, and at such moments told himself that it was not really his concern, that he was a doctor, that the world was what it was, that he could only mend a leg when it was broken, repair hernias, viscera, internals, and send "Mary" to the hospital when she was caught in the net of her "occupational hazards."

As the months dragged by a new fear cut into the unrelieved drabness of his life and work. He found himself tiring more easily and needing more sleep. He worried lest he should be losing the drive and energy which had never failed him before. And with increasing fatigue came more doubts, more moodiness, more bitterness.

Then he would be called out on a case. He would find a patient dying and would pit himself doggedly against the unknown menace that stole the fruits of the body and mind. He immersed himself in cause and cure and won the patient back to health. He would feel triumph and accomplishment flowing through him again, reviving him, re-establishing the old hopes and pride. His knowledge and skill would become a warm glow inside him, with no room for moodiness or doubt. Once again he was the confident surgeon, certain of the future, biding his time and undismayed by poverty.

And suddenly, overnight, before he had time to realize what was happening, he went from failure to success — and money.

He had managed to get himself attached to one of the city hospitals, performing routine surgery. He was coming out of the operating theater one day when a well-dressed, pleasant-mannered individual stopped him in the corridor, introducing himself as Dr. Grant Martin.* Bethune had heard of him as one of Detroit's most successful practitioners.

"I admire your work," Dr. Martin told him, "and I would like to suggest that I send my surgery cases to you. . . . Perhaps you and your wife could come up to the house some evening and we could discuss it further."

"That would be fine."

* A pseudonym.

supervision, and in a matter of days had the patient out of danger. The grocer's cash register was as empty of money as his heart was full of gratitude. "The only way I can pay you, Doctor," he said humbly, "is in trade. For what you did you can have all the groceries you want, free of charge, as long as you want." That settled most of the problem of food. The rest of the problem was settled by a butcher across the street with a fortunate fondness for children.

He came to Bethune's office, tapping the sawdust from his shoes on the stairs, and said hesitantly, "I gotta houseful a kids. You look after the kids an' I give ya all the meat ya kin eat."

"At least," Bethune told Frances, "we shall now have a balanced diet."

When the owner of a hardware and furniture store brought his ailing wife to join the parade, the circle was complete. They got a bed to put under the mattress, pots and pans for the kitchen and Grand Rapids furniture to put in incongruous intimacy with the Louis Quatorze chairs.

He gave it a little time—and more time—and still his fortunes remained at the level of his patients. Gradually more people came to his office, but the poverty of the many yielded him little more income than the poverty of the few. Some of his patients became a source of irritation. They would come to his office, or send someone to take him to their homes, and they would be dangerously ill with ailments that could easily have been handled in the initial stages. Either it was a pain that was left untended till it was a ruptured appendix, or an unheeded discomfort that was already advanced venereal disease, or a hernia now strangulating, or a hundred and one other illnesses complicated by neglect.

"Why do you wait so long before calling in a doctor?" he would rage. And the patient, a Slav or a Hungarian or a native-born auto worker, would be incoherent with the embarrassment of his poverty.

The shabby flats, the unpaid bills, the senseless, all-pervading sickness in the boom city of fat America began to depress Bethune. "This isn't medicine," he would say to Frances. "It's like putting a mustard plaster on a wooden leg. When they need treatment they either don't know it or are afraid they can't pay for it. When they finally do come, it's often too late, or their health has become completely undermined. And what

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A pseudonym.

They shook hands. "I think we'll make a good combination," Dr Martin said cordially

A brief conversation — and everything was changed.

At Martin's home Bethune and Frances met other eminent doctors and socialites. To the office at Cass and Seldon there now began to come men and women of wealth and social position. Other doctors followed Martin's lead and turned their patients over to the surgeon everybody was suddenly talking about. Sped on its way by Martin, the word spread that Bethune was "the man to see."

Money now began to pour in. Whereas his neighborhood patients came to him only in their extremity pleading their poverty his new patients expected to be billed handsomely for the most trivial services. At the hospital he began to move ahead in surgery applying the skills and techniques he had learned under the masters in Europe. Within a few months they moved to an expensive home in a fashionable residential area He refused to move his office, however though most of his patients now were extremely well-to-do.

Success was welcome but sometimes, as he sat in his newly furnished office, he looked at his hands and thought what has changed? They were the same hands. Had they some new magic today that they lacked yesterday? He knew the answer yesterday they had treated the poor today they treated the rich.

Money now was what he sought. He needed money! But in the making of money he came to hate the very methods by which he made it. With success he was no longer the old Dr Bethune. He found himself now a prisoner in a rigid system, with its "scratch-my-back-and I'll-scratch-yours" outlook, and its rake-off for the general practitioners who sent him their patients. The specialist was expected to charge all that the traffic would bear and the "gravy" would pass down the line, with the patient "taxed" to keep the system going

Money was the beginning and end. He took as much as he could and returned to his first patients in the slums to find his lost sense of peace, the tarnished ideals of the doctor serving the sick and the poor

Money was the goal to which the system shaped all aspirations, and he

let himself ride the success that swelled his earnings daily But life intruded with the reality of suffering men and women who needed his help but couldn't pay for it.

One night he was awakened by a banging at the door A man was standing in the darkness. He let loose a torrent of words. Bethune finally managed to learn that the stranger's wife was in labor and could find no doctor who would perform the delivery He soon found out why The man lived with his wife and two children in an abandoned boxcar on the outskirts of the city

By the light of a kerosene lamp, with the husband assisting and two children huddling on a mattress in the corner he delivered an undersized, wrinkled baby He washed it, wrapped it in some torn blankets the father handed him, and put it beside the mother for there was no crib.

As he washed up in a basin of water filled from a barrel outside, the father came up nervously holding a dollar bill in his hand. Bethune took the bill, folded it, and put it back into the man's shirt pocket.

In the morning he returned with a basket of food, diapers for the baby and a nightgown for the mother He prepared a diet for the undernourished mother and examined the baby When he left he cut short the father's nervous thanks gruffly He knew the mother could recover but the baby would probably be dead within the month. This they called medicine—the hallowed art of healing!

A job at twenty dollars a week, he complained to Frances, would have done more for the husband than all the wonders that could now be performed on his doomed child. Medicine? The fakers even refused to interrupt their comfortable slumbers to deliver a boxcar child!

He became outspoken about some of his colleagues. While Frances would sit quietly reading he gave vent to his bitter feelings. "Some of them have as much right to be practicing as the medieval barber I'd weed out half of them to begin with and put them to work behind a counter And I'd see to it that the remainder understood they were doctors, not men of commerce.

To a new-found friend, a Dr Short, after being called in to repair some bone surgery another man had bungled, he said, "I could make a better mother than he could make a surgeon. The idiots think they've gone into

business! I tell you the medical profession should establish a commission of the best men available to pass on the qualifications of doctors and surgeons after they've been in this—this "business—for two years. Talk about ethics. A Philadelphia lawyer is a paragon of virtue compared to some of us."

His strong views, openly and everywhere expressed, aroused resentment and criticism among some doctors. "Some of them are so damned sanctimonious," he complained, "that they expect everybody to swallow the fairy tale of their infallibility and devotion to duty They just can't stomach criticism. They want the public to think they re infallible. And some of them actually end by convincing themselves that they can never be wrong. Their slogan should be, save the surface and you save all. That s all they know and are interested in—the surface. In the slums people don't come to me, when they should, because they have no money Now I charge many times the fees I should, and there are others who do even better When I saved a man s life for nothing I was a failure. Now when I give a woman a simple tonic where a good, bracing set of exercises would do just as well, I collect a fantastic fee and am a success."

Frances rarely saw him now He was always in his office, or out on calls, or she suspected, spending part of the night with drinking companions. She began to notice a change in him that filled her with new fears.

Along with his drinking, his fits of rage, his long moods of bitterness, he was slowly undergoing a strange physical transformation. His colleagues, noticing it, cautioned him to cut down on his work. The suggestion threw him into an irrational fury He was now a successful surgeon, wasn't he? And success was measured in terms of income, wasn't it? Well, he would make money, and more money and still more money—till he had all he needed so that he could do what he wanted to turn his back on the world, if it so pleased him to laugh at the unimportant aches and pains of the useless rich to see if medicine could be practiced the way he had once dreamed, during the idealism of his adolescence.

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There came a time when his energy and resilience glimmered away entirely. He was tired in the early hours of the morning, and just as tired when he started painfully on the morning's round of patients, but he

and that the housekeeping had stopped completely. He wondered what day of the month it was and listened [illegible] to the sounds in the street. Listening, it struck him as somehow incongruous that this was another day like all days, and the sounds in the street were as familiar as ever. Had he forgotten so easily, he wondered, that life would go on outside his room as before?

Morning in Detroit—with birds chirping somewhere, cars starting on chimney stacks, whistles blowing, children shuffling to school. [illegible] In London, it would be noon, and on the Mediterranean coast, time for siesta. On such a day in Soho, he might dream of boating on the Thames, or Vienna, of skiing in the Alps, or Rome, of the hot beaches in the south. Now it all seemed far away. He marveled at the calmness with which the thought left him. Gravesend, London, Europe, memories of the war, his marriage to Frances, poverty and success in Detroit—strange, but they were only feeble flickerings out of the past. Or was it strange, he wondered, that they should now seem so dim and unimportant? They had happened, that was all. A curtain had fallen over them, they were part of a bad play that had ended.

Frances [illegible] Did the name stir anything? Yes—a little bitterness, and much compassion. He had failed her, or she had failed him, or something had gone wrong anyway. It was all wrapped up and futile and nothing left to it. Not even children, to give you the illusion, at least, that a part of you went on and didn't die.

And if the curtain had fallen on Frances, what else was left? Nothing. Of course, there had been the doctor watching him, the doctor he had grown up with from childhood. A great surgeon. What a doctor! A bone-butcher, a money-grabber, a sycophant—there was your healer.

His eyes, roving about the room, fell on a mirror on his bedside table. He reached out for it and examined himself curiously.

He was unprepared for the change in his appearance. He had watched himself losing weight steadily, but in the short time he had been in bed his cheeks had become hollow, his hair had turned grayer, the eyes glowed with fever.

He sank back, exhausted. "To burn with a hard gemlike flame!" Even Pater had been an illusion.

6

FOR two weeks he lay on his back. A mist seemed to have wrapped itself about his mind, clogging his thoughts. Sometimes his lips twisted into a brief, bitter smile. The faces of doctors swam into his view and he heard whisperings in the hallway. Sometimes the mist lifted, and he looked up at Frances. He seemed to study her face then, impersonally as if she were a stranger, and said nothing. The doctors muttered, "Very bad hemorrhage." He heard them, staring frozenly at the ceiling. Shock, hemorrhage, loss of blood . . . More than that he thought to himself much more than they could label with their poverty-stricken terms or reveal on their X-ray plates.

For days the voices whispered in the hallway, the shadow of Frances hovered over him, the warm, salty bubbling in his throat awakened him sometimes to darkness, sometimes to light. The faces peered at him and receded, the shadows chased each other in a devil's dance on the ceiling.

"Dr Bethune . . ."

It was one of the doctors beside his bed. Why were they still plaguing him?

"Dr Bethune . . ." The well-preserved face, with the well-trimmed beard, the well-cultivated bedside manner. The face of a handsome fee. "How do you feel?" What a restricted vocabulary they all had. "How do I feel?" he mimicked. "As if I'm dying. How do you feel?"

The face withdrew, beard and all.

The old goat . . . Would he answer a call in the middle of the night to deliver a woman in a boxcar, with her husband out of work, no food for the children, and two other families sharing the car? It was too tiring even to think of it. He closed his eyes and let himself sink into the half sleep for which his body yearned.

One day he awoke early. His mind seemed clearer. He watched the sun slant in through the window, relieved that his breathing was a little easier

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One day he awoke early. His mind seemed clearer. He watched the sun slant in through the window, relieved that his breathing was a little easier

In Toronto, the next morning, his parents were waiting for him at the station to take him to Gravenhurst.

His father was older, a little stooped. His fingers trembled as he extended his hand. On his mother's strong, proud face there was a look of anguish. Together they boarded the train for northern Ontario, his mother sitting beside him.

As the train crossed the Don river he gazed silently at the clumps of trees, the fields turning brown, the last few houses on the fringe of the city. Once his mother turned her old eyes on him and asked, "Norman, is there much pain?" He shook his head. Not that kind of pain.

Sandy patches appeared in the fields, then came the stiff, green pines, the outcroppings of rock on the low hills, the first fingers of the Muskoka lakes, and at last Gravenhurst.

They drove through the town, past the little church where he had once listened to his father in the pulpit, and into the rock-capped hills. A few minutes out of the town they swung towards the lake and drove over a cinder road, between lines of carefully tended pines, into the sanatorium.

In the infirmary, while he lay back in the rough-textured hospital clothes, his mother bent her head beside his bed and prayed, her eyes brimming. He took her hand gently. "No, Mother," he said. "There's no need for prayers or tears. I have no regrets. I'm tired. Anything coming after this would be an anticlimax."

8

He was through with the world, but a letter from Trudeau Sanatorium changed the course of his treatment.

In Detroit his first impulse had been to gain admittance to Trudeau Sanatorium at Saranac Lake, New York. But there had been no bed available. Now, a month after his arrival at Gravenhurst, a letter from Saranac Lake informed him that he could gain admittance immediately.

Founded by Edward Livingston Trudeau, the great pioneer in sanato-[illegible]t in North America, the Saranac Lake hospital was highly

His reverie was disturbed by footsteps. It was Frances. He watched her as she placed his glass of milk on the table, studied her solicitous face, let her prop up the pillows behind him then said in a firm voice

"There's something we have to talk about I don't know what they've told you, but I'm dying *I'm* finished—*your* whole life is ahead of you. I want you to divorce me and go your own way"

7

For some weeks he was treated at a local hospital, and then, when he was strong enough to travel, he left for Calydor Sanatorium, up at Gravenhurst. He was "going home," and the irony of his life was complete.

At the railway terminal Frances stood beside him among the hurrying crowds, while a redcap took his luggage. He looked about the station. Detroit, he thought—heart of the new America. Another year and another dream that the locusts had eaten.

Frances held his arm tightly She had begged to go with him, but he had clung stubbornly to his single theme he was dying, they would be divorced, she would find a new life for herself, and a clean break now would be best for both. She had been stunned, then outraged, then crushed. All her feelings of loyalty of love, cried out in protest. Whatever had happened between them, she could think of nothing but to be with him, to give him whatever frail support she could, and let the future take care of itself. But to all her pleas he had calmly replied "It makes no sense. You have a full life ahead of you. I won't be a partner to wasting any more of it. I won't leave for the sanatorium until you agree to divorce me." That had defeated her

As he turned to her now she tried desperately to think of what to say how to make right and whole again everything that had slipped through their fingers.

He bent to kiss her "Good-by dear unspeakable Scot," he said softly "Go back to Edinburgh—you'll be happier there. Sell everything and go back. " He turned and went down the station platform.

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There was Dr B., a Southerner with fair hair blue eyes, a handsome face, a warm, pleasant smile. There was Dr Lincoln Fisher born in Michigan, brought up in New England, dark, young, eager quick. There was Nan Li, a Chinese, short, correct, friendly And there was Norman Bethune, assessing them quickly liking them all immediately and now joined with them in an intimacy that extended through every minute of every hour of every day

For each of them the Trudeau staff had decreed bed, rest, quiet. They had their own ideas about how to spend their remaining days. They established an "underground" to the outside world through some of the attendants, and through this "underground" they smuggled in liquor food, and anything that appealed to them. They disdained the natural boundaries of night and day. Often, when the lights blinked out in the other cottages, they squeezed into the bathroom to play Russian bank all night, a dressing gown draped over the single small window so that the light wouldn't give them away They loved music and listened for hours to a gramophone that was "legal. Their favorite record was "Lonesome Road," and they played it over and over again. They kept a secret "pantry" from which they prepared snacks the administration would have frowned upon. Sometimes they invited other inmates to gay parties. If they kept late hours one night, they slept the next day They talked endlessly of life, tuberculosis, books. With "scientific detachment" — real or pretended — and with an eye to the future, they kept a chart of the dates on which each one expected to die.

The mood to which they were keyed was expressed in a series of murals Bethune sketched on the walls while the others watched with interest. He entitled the murals, "A T.B.'s Progress A Drama in One Act and Nine Painful Scenes." The visual drama consisted of nine allegories showing the various stages of his life from womb to tomb. It had vivid color bold lines and the prophecy of an early end for the four of them. Under each allegory he wrote a satirical verse.

The first panel showed the Angel of Life holding the infant Bethune in her arms. The succeeding panels showed the infant beset by ferocious-looking animals, symbolizing childhood diseases. Then came early man-

Dr. B. has requested that his name be withheld.

regarded throughout the medical profession. Despite his mood of weary fatalism Bethune decided to make the change.

He arrived at Trudeau Sanatorium on December 16. Holly wreaths on the buildings gave the hospital a Christmas touch. Once again he went through the routine examinations and submitted quietly to all the tests. He was fascinated by his own X rays. He read, he wrote letters, he lay thinking for hours. He showed no anxiety no hope, no fear He wore an air of neutral calm, yet managed to bend the infirmary s routine to his own whims despite anything the nurses could say While he was confined to bed he wore an old straw hat he had brought with him. After he was permitted to get up he strolled about the corridors in his pajamas. When he was finally transferred to the "Lea," one of the sanatorium cottages on the slope of Mount Pisgah, the infirmary staff breathed a nervous sigh of relief.

In the cottages of the miniature city the little world where January 1927 was a footnote on a medical chart, the patients awakened in the morning their breaths clouding the air The doctors passed along the assembly line of flushed faces, dispensing optimism. The founding father Trudeau himself, stood sentinel before the gate in solid bronze, new patients entering and old ones leaving before his sightless eyes. And up in the cottage called the Lea, four men with nothing to wait for closed the circle of their lives, growing attuned to each other s innermost thoughts and abandoning all pretense of privacy

Four men — three of them doctors — all condemned to death by tuberculosis, all knowledgeable in the disease that had condemned them all apprised of the symptoms appearing hourly daily weekly in notification of the time and form of eventual extinction. In two hundred and twenty five square feet of space, they occupied four single cots, between walls of yellow pine, arranged to make the best of windows and doors opening on three sides and a fourth doorway into a tiny bathroom. As the wind blew louder and the snow piled higher against the cottage they grew into a macabre community in which they knew the special tonal quality of each member s cough, each one s special tastes, discomforts, habits, wakings, nightmares.

self, his past life, the wind rose up against the carriage like the [illegible] of a giant hand. The others understood his resentment. Each of them, in his own way had been squeezed in the same vise. But they were veterans now—they could be patient with the T.B. apprentice.

He grew silent and lay back on the cot. The letter, he thought to himself, had reminded him of something he had forgotten. He had come to Tredon, accepting his fate; now he was discovering what it meant to fear it. Now the thought that he would never again see Frances filled him with an intolerable emptiness, the better knowledge of what it meant to lose her, and losing her, of his final isolation here on Mount Pisgah, waiting for the end. He had known only the surface of death; now he was tasting its last, slow agonies.

He roused himself. "The hell with it," he said. In his lung the rot was spreading fast; soon it would put an end to all pangs and questionings. "Let's have another drink."

While Fisher fetched the bottle he pulled out the gramophone and put on a record. A rich baritone filled the room. *The Lonesome Road*

The voice died away, the room became still. In the darkness the others watched him, knowing there was nothing to be said, then fell quietly asleep. Switching on his bed lamp he began to write a letter to Frances.

Dear Frances,

So you are going back to Edinburgh. It's for the best. Your feathers have been sadly ruffled, and there is nothing I can do now.

Here nothing happens—or nothing seems to happen. Actually much does happen. Contemplation becomes not a virtue, [illegible], and no one here can escape the changes, the discoveries, the greater self-knowledge that are inevitably the product of such enforced contemplation.

I once, vaguely accepted the idea of my own special, personal predestination. It has disappeared in the mass. Here, where we are excluded from the living world, we perhaps get a little closer to reality sometimes. Out of that closeness arose the understanding, with its inevitable cycle of despair, hope, resignation. But it comes too late—for me. What a terrible irony that the man [illegible] constance becomes the center of his life at the end of everything, his defeat.

hood, with a young man at the prow of a ship, lured from his course by four sirens labeled Fame, Wealth, Love and Art. They pointed to a castle, labeled Castle of Heart's Desire. The next panel showed the castle to be nothing but an illusion, a Hollywood stage set, where the young man was attacked by swarms of "T.B bats." The next panels depicted him entering Trudeau, then leaving the sanatorium and dying on the plains of Arizona.

The final panel showed the Angel of Death holding Bethune in her arms. She looked down at him with a kindly expression. In the foreground was a small graveyard and a row of tombstones. Under the final scene was the verse

> Sweet death thou kindest angel of them all,
> In thy soft arms, at last, O let me fall
> Bright stars are out, long gone the burning sun,
> My little act is over and the tiresome play is done.

From the mural the Angel of Death looked down upon them with her benevolent face while spring came, and with it a letter from Frances. The divorce had become final she was leaving for Edinburgh at once.

He reread the letter tossed it away pulled on his coat and went out. For hours he walked among the hills, filled with many conflicting thoughts, wanting to be away from everyone. The letter had awakened an unexpected nostalgia. Why should it matter? he asked himself But now that it was settled, it did. He had demanded the divorce, but suddenly it seemed as if the last, thin strand connecting him with the outer world was gone. The knowledge that a part of him was still vulnerable, could still yearn for something he had put behind him, was a shattering revelation. As he sloshed through the wet snow he wrestled with a rising feeling of impotence, self-pity rebellion.

It was dark when he returned to the Lea. Fisher Li and B. were waiting for him. "Is there a drink left?" he asked.

Sitting on his bed he felt a deep need for companionship, an urge to talk. The others, sensing his disturbed mood, listened attentively

It began to snow outside. The wet flakes spattered against the windows. The night seemed to grow white. Bethune lit one cigarette after another talking compulsively and refilling his glass. As he rambled on, about him

self, his past life, the wind rose up against the cottage like the prodding of a giant hand. The others understood his restlessness. Each of them, in his own way had been squeezed in the same vise. But they were veterans now—they could be patient with the T.B. apprentice.

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Here nothing happens—or nothing *seems* to happen. Actually much *does* happen. Contemplation becomes one's special form of action, and no one here can escape the changes, the discoveries, the greater self-knowledge that are inevitably the product of such enforced contemplation.

I once, vaguely accepted the idea of my own special, personal predestination. It has disappeared in the ruins. Here, where we are excluded from the living world, we perhaps get a little closer to reality sometimes. Out of that closeness come glimmerings of understanding, with its inevitable cycle of despair hope, resignation. But it comes too late—for me. What a terrible irony the victim of circumstance becomes the master of his fate at the price of accepting his defeat.

hood, with a young man at the prow of a ship, lured from his course by four sirens labeled Fame, Wealth, Love and Art. They pointed to a castle, labeled Castle of Heart's Desire. The next panel showed the castle to be nothing but an illusion, a Hollywood stage set, where the young man was attacked by swarms of "T.B. bats." The next panels depicted him entering Trudeau, then leaving the sanatorium and dying on the plains of Arizona.

The final panel showed the Angel of Death holding Bethune in her arms. She looked down at him with a kindly expression. In the foreground was a small graveyard and a row of tombstones. Under the final scene was the verse

> Sweet death thou kindest angel of them all,
> In thy soft arms, at last, O let me fall
> Bright stars are out, long gone the burning sun,
> My little act is over and the tiresome play is done.

From the mural the Angel of Death looked down upon them with her benevolent face while spring came, and with it a letter from Frances. The divorce had become final, she was leaving for Edinburgh at once.

He reread the letter, tossed it away, pulled on his coat and went out. For hours he walked among the hills, filled with many conflicting thoughts, wanting to be away from everyone. The letter had awakened an unexpected nostalgia. Why should it matter? he asked himself. But now that it was settled, it did. He had demanded the divorce, but suddenly it seemed as if the last, thin strand connecting him with the outer world was gone. The knowledge that a part of him was still vulnerable, could still yearn for something he had put behind him, was a shattering revelation. As he sloshed through the wet snow he wrestled with a rising feeling of impotence, self-pity, rebellion.

It was dark when he returned to the Lea. Fisher, Li and B were waiting for him. "Is there a drink left?" he asked.

Sitting on his bed he felt a deep need for companionship, an urge to talk. The others, sensing his disturbed mood, listened attentively.

It began to snow outside. The wet flakes spattered against the windows. The night seemed to grow white. Bethune lit one cigarette after another, talking compulsively and refilling his glass. As he rambled on about him-

self, his past life, the wind rose up against the cottage like the prodding of a giant hand. The others understood his restlessness. Each of them, in his own way had been squeezed in the same vise. But they were veterans now — they could be patient with the T.B. apprentice.

He grew silent and lay back on the cot. The letter he thought to himself, had reminded him of something he had forgotten. He had come to Trudeau, accepting his fate now he was discovering what it meant to *live* it. Now the thought that he would never again see Frances filled him with an unendurable emptiness, the bitter knowledge of what it meant to lose her and losing her of his final isolation here on Mount Pisgah, waiting for the end. He had known only the surface of death, now he was tasting its last, slow agonies.

He roused himself. "The hell with it, he said. In his lung the rot was spreading fast; soon it would put an end to all pangs and questionings. "Let s have another drink.

While Fisher fetched the bottle he pulled out the gramophone and put on a record. A rich baritone filled the room *The Lonesome Road*

The voice died away the room became still. In the darkness the others watched him, knowing there was nothing to be said, then fell quietly asleep. Switching on his bed lamp he began to write a letter to Frances:

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more important advance than that now being made in the operative management of pulmonary tuberculosis."

Surgery for pulmonary T.B. Done by whom? He could recall only inconclusive reports in American medical literature. Operative measures—Direct, drastic, surgical intervention? As opposed to the orthodox, lingering, uncertain rest in bed? Hadn't he himself once voiced doubt of the adequacy of rest alone? He was seized by a sudden excitement

> Only a few years ago any kind of surgery for the disease was considered ill-advised and meddlesome. Extrapleural pneumothorax, thoracoplasty and allied procedures are now offering to a large group of persons with predominantly unilateral tuberculosis (i.e. T.B. in one lung mainly) an excellent chance to escape a certain tuberculosis death and to become permanently well.

He reread the passage carefully. This doctor was actually making the bold, casual statement that supposedly hopeless cases of T.B., present mainly in one lung, could be completely cured by surgical methods! But that was precisely his own conclusion—intention [illegible] the [illegible]. Bethune read on swiftly, his excitement continuing to increase as Alexander, in measured words, declared that there was sufficient evidence to adopt surgical procedures, that an appalling ignorance lay behind the failure to utilize them in America, that thousands of men and women were dying because of that failure, that there had been widespread misrepresentation where the facts had not been wholly ignored. The words seemed to leap up at him:

> In view of the enormous amount of work that has been done since the days of Koch to find a cure for mankind's most widespread scourge, it is surprising that the medical profession as a whole knows so little of pulmonary compression (collapse of the lung). Without
> the most valuable contribution to the therapy of pulmo-
> that has been made in the present century and, in
> [illegible] sanatorium treatment in the eighteen
> [illegible] surgery for selected cases of pulmonary
> [illegible] open for discussion [illegible] It is in-
>
> [illegible] infected lung.

He stopped writing with a sudden feeling of futility A strange sensation was crawling through him. He struggled with the ruth of loneliness and overwhelming dread. It bit into him too sharply to be denied the taste and smell and substance of fear It was a lie that he could purge himself of Frances. It was a lie that he had lived his life. It was a lie that there was nothing left for him. He had created nothing, he would leave nothing behind him, he had not yet even lived. He switched off the lamp and gave himself up completely to despair

Above him, in the nine painful scenes of a T.B. s Progress, the darkness seemed to twist the gentle features of the Angel of Death into a hideous grin.

9

IT WAS A WARM EVENING in late summer In the groves of cottages the windows were open to the warm breezes. In the Lea, the four inmates lay in bed reading They had just returned from the library each carrying a stack of novels, magazines and medical journals.

Bethune had started on a current novel, grown bored and picked up a book by Dr John Alexander, *The Surgery of Pulmonary Tuberculosis.* He riffled the pages idly thumbed backwards and then said aloud, "Listen to this." He read

> It is rather extraordinary that we should have been so seriously backward in doing pioneer work in the surgery of pulmonary tuberculosis. It will be a surprise to the majority of American physicians who read this book to realise the steady advance in thoracic surgery[1] and the definite hope offered the hopeless.

"Let s have a look at it when you re through," Fisher said sleepily

Bethune adjusted his bed lamp, settled back once more and began to read The opening sentence was a calm statement, but weighted with revolutionary overtones "Surgery of the twentieth century can boast no

[1] Chest surgery

more important advance than that now being made in the operative management of pulmonary tuberculosis."

Surgery for pulmonary T.B. Done by whom? He could recall only inconclusive reports in American medical literature. *Operative management*.... Direct, drastic, surgical intervention? As opposed to the catch-all fetish, lingering, uncertain rest in bed? Hadn't he himself complained about the inadequacy of rest alone? He was seized by a sudden excitement.

> Only a few years ago any kind of surgery for the disease was considered ill-advised and meddlesome. Extra-pleural paravertebral thoracoplasty and allied procedures are now offering to a large group of persons with predominantly unilateral tuberculosis (i.e., T.B. in one lung mainly) an excellent chance to escape a certain tuberculous death and to become permanently well.

He reread the passage carefully. This doctor was actually making the cold, casual statement that supposedly hopeless cases of T.B., centered mainly in one lung, could be completely cured by surgical methods! But that was precisely his own condition — infection crippling the left lung. Bethune read on swiftly, his excitement continuing to increase as Alexander in measured words, declared that there was sufficient evidence to adopt surgical procedures, that an appalling ignorance lay behind the failure to utilize them in America, that thousands of men and women were dying because of this failure, that there had been widespread misrepresentation where the facts had not been wholly ignored. The words seemed to leap up at him:

> In view of the enormous amount of work that has been done since the days of Koch to find a cure for mankind's most widespread scourge, it is surprising that the medical profession as a whole knows so little of pulmonary compression (deflation of the lung). Without doubt it is the most valuable contribution to the therapy of pulmonary tuberculosis that has been made in the present century and, in fact, since Detweiler advocated sanatorium treatment in the eighteen seventies.... The value of surgery for selected cases of pulmonary tuberculosis is no longer a matter open for discussion.... It is in-

Removal of part of the ribs to collapse an infected lung.

cumbent upon physicians everywhere to acquaint themselves with the indications and contra-indications for surgery so that the thousands of patients, who would otherwise certainly be lost, may be saved.

This volume, the first in the English language, presents the entire subject of the surgery of pulmonary tuberculosis with the object of acquainting the medical profession with the principles and practical details that will enable it each year to save thousands of lives which *certainly will be lost if surgery is not undertaken.*

The others were asleep now Only his bed lamp burned in the darkness, casting shifting shadows on the walls. Bethune looked thoughtfully at the book in his hands. Why hadn't he heard of it before? He searched among the pages to find the date of publication 1926, the previous year

So that thousands may be saved! — Hope for the hopeless! Could it be that a fresh approach had been found, that somewhere medical men, trying to pierce the unknown, had found a light, and needed only to be followed?

When dawn came his bed lamp was still burning At last he let the book fall away but it was a long time till he slept. A thought had begun to take shape in his mind, a slippery elusive wisp of hope that he hardly dared acknowledge. Hope? No, not yet, he told himself — merely a growing resolution.

He fell asleep with daybreak in his eyes, Dr John Alexander's book beside him many of its passages heavily pencilled, his life for better or worse, profoundly irrevocably unshakably altered.

For the next few days he said little to anybody He spent most of his time in the staff library searching for everything published on surgery for pulmonary tuberculosis. He was astonished to find how little material there was on the subject. A few of the articles he found in medical journals he dismissed as inconsequential in the face of the material collated by Dr Alexander Apart from a few articles by Dr Alexander himself he was forced to fall back on that expert's book. But what he did find was enough to set his mind teeming with new ideas.

For weeks he pumped every source he could find. In Alexander's book he read with admiration of the men who had cast aside hidebound tradition and sought revolutionary procedures of restoring the tuberculous to

health. De Cerenville in Switzerland Brauer Wilms, Sauerbruch, Stuertz, in Germany; Gourdet, Tuffier Bérard, in France; Jacobaeus, in Sweden Davies, in England, Gekler and Murphy in the United States· Archibald in Canada. These were men who rejected the concept of medicine as some thing static. They attacked what was unknown, in order to make it known. If men died of T.B., they insisted the job of medicine was to discover how to keep them from dying If the current techniques failed, they insisted new techniques had to be found. And a special thrill in the vast agitation with which Bethune was now filled was the discovery that a Canadian surgeon, Dr Edward William Archibald of Montreal, stood forth among the men advancing the new creed that there was "hope for the hopeless."

All of these men, with their own hands, had shown there were countless cases where patients had been put to bed without improvement, but had recovered when the infected lung had been collapsed either permanently or temporarily as the individual conditions required. As he reached deeper into the subject, Bethune went from impatience to exasperation.

The Lea now resounded constantly to discussions on artificial pneumothorax[1] and the drastic operation known as thoracoplasty

"It's beyond belief, Bethune would say "Many thousands are dying who are not only suitable for surgery but urgently need it, and aren't get ting it. Only 17 surgeons in this country have been using the methods de veloped by Sauerbruch, Brauer and others. And the total number of operations in the past seven years — in America, I mean — has been only 300. A drop in the bucket. At this very moment there are 30,000 men and women, in this country alone, and I wonder how many in Canada — 30,000 who are dying, for whom there is no hope with the current methods, and who might be saved by surgery — compression of the afflicted lung by one method or another.

He paced the floor moodily "That isn't mere ignorance. It isn't only conservatism. It's downright barbarism And what about us? Do you think any one of us stands a chance, lying in bed till doomsday? He paused, confronting them. Alexander has gathered all the evidence. Ar tificial pneumothorax, which even we have known about for some years,

[1] Insertion of air into chest so as to collapse one lung.

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thorax treatment, which was known to the hospital staff, was still considered to be a form of therapy in its experimental stages. Before long the entire world of T.B. medicine was arguing the pros and cons of Dr. Alexander's statements and theories. It was inevitable that Alexander's views would eventually prevail, but the role Bethune was destined to play was to hasten its acceptance at Trudeau. He was ready to act as a guinea pig himself.

If some of Trudeau's staff doctors were loath to try a therapeutic procedure which they weren't entirely sure about, then they must have welcomed the opportunity of having a patient insist on it, particularly when the patient was an experienced physician who understood all the risks involved. The effect of the pneumothorax treatment was quick and dramatic. His cough faded and the sputum disappeared within a month. He felt a new vitality seeping through him, a transformation of mood and consciousness, a steady influx of restless energy and hope.

Following the prescribed routine now to the letter he drafted a program for the rehabilitation of T.B. patients returning to normal life. The tuberculous, he argued, were somewhat in the same fix as the war veterans. They were torn from their normal routine, their lives interrupted, and if eventually cured, returned to their homes without adequate preparation to take up their old lives or begin all over again. His plan envisaged a university right in the sanatorium. The professors were to be men suffering from T.B. themselves. The students were to be the patients on the way back to health. The purpose would be to fit the patients vocationally and psychologically for a world which made no provisions for their return. The plan was looked upon as a Utopian dream but was destined to be realized eventually

But he was not satisfied merely to plan rehabilitation programs. He was anxious to plant his feet firmly on the future. He began preparing for his own return. He studied avidly kept notes on his reactions to the pneumothorax treatment, plunged deeper into surgical therapy for T.B., wrote a steady stream of letters to old friends, and took over a course on physiology

Medical records at Trudeau Sanatorium.

Ten years later a Study Craft Guild was established at Saranac Lake. "Only a few friends of Bethune," says Mrs. F. H. Heise, wife of Trudeau's medical director, "realize this is an outcome of Bethune's dream."

but of which we seem to be afraid, for some reason, as the devil fears holy water Yet what could be simpler? Insert a hollow needle into the chest cavity Pump air into the cavity so that the lung is deflated as much as you want to deflate it. Then the lung is truly rested. It can't move. Compared to that, staying in bed keeps the lung working like a fire engine And when that's done, keep pumping your air in every week, every month, every two months as often as necessary for as long a period of time as necessary"

He waved the book in front of him. "I'm tired of dying this way"

"What do you suggest? Can you say you've honestly given bed rest a fair trial?" Father asked.

"No, and I don't intend to. I want compression treatment. Alexander has convinced me. All of this is just horsing around. I'm going to demand artificial pneumothorax." That afternoon he stormed into the administration building while a staff meeting was in progress and demanded artificial pneumothorax. Trudeau's staff was well acquainted with his turbulent personality and one doctor carefully suggested that there were risks involved in the treatment.

Bethune grinned, opened his shirt and exclaimed, "Gentlemen, I welcome the risk!"

He was to comment later that despite his criticisms of the "conservative therapy at Trudeau it had been fortunate for him that he was treated there. Since the sanatorium's founding near the end of the nineteenth century it had been in the vanguard of the fight against tuberculosis on the North American continent.

Most of the leading T.B. therapists at the time either trained at Trudeau or made sure they saw some service there. This included such T.B. specialists as *Dr John Alexander and Dr Edward Archibald, both of whom Bethune was to meet before he left the sanatorium. However* the hospital administration of the period reflected, to a great extent, the then current attitude to T.B. surgery even though Trudeau's administrators were more advanced than their contemporaries in other parts of the country

Thus, surgery was only recommended in advanced cases, and pneumo-

thorax treatment, which was known to the hospital staff, was still considered to be a form of therapy in its experimental stages. Before long the entire world of T.B. medicine was arguing the pros and cons of Dr Alexander's statements and theories. It was inevitable that Alexander's views would eventually prevail, but the role Bethune was destined to play was to hasten its acceptance at Trudeau. He was ready to act as a guinea pig himself.

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and anatomy for student nurses at the D Ogden Mills School of Nursing sponsored by the sanatorium.

Two months after he had received his first artificial pneumothorax he was X-rayed for the last time, tapped, investigated from stem to stern, and pronounced fit to leave Trudeau. The effect of compression therapy in his case had been nothing short of miraculous — almost complete recovery in two short months!

The cavities in the lung had healed under pneumothorax and a temporary phrenicectomy.* There was no sign of infection. For years to come his bad lung would remain artificially collapsed.

All evening doctors and fellow patients came to the Lea to say good-by Then they were alone, he and his three cottagemates.

"We'll miss you," Fisher said simply "The Lea won't be the same any more."

"And a good thing, too," Bethune laughed.

He slapped Fisher on the back affectionately "You idiots. I would miss you too, except for one thing I expect to see you all soon in the thriving flesh hale, hearty and pneumothoraxed."

In the morning, with a firm handshake all around, the four men said their farewells. In front of the administration building, in the December snow with the sleigh waiting, they pommeled each other grinning like a quartet of kittens. Then he was off, standing up in the sleigh and waving his arms till he had passed through the gate and down the slope to town.

At the station he scrawled a cable to Frances in Edinburgh and handed it in at the telegraph office: "Cured, left Trudeau today Am feeling the same about you as always. Will you marry me?" He had a minute left for a last look at Saranac Lake, once more covered with snow and then he was on the train, rattling through the white hills.

He pressed his face to the window in exultation. It was real he was leaving; he was free he had cheated the hangman. One year ago he had come through these same hills — for the last time, he had thought then, resigned to his fate, uncaring, all his farewells made. In Detroit, he re

*Or phrenicotomy. The phrenic nerve is interrupted to paralyze the diaphragm. This helps to compress the diseased lung.

fected, he had gone under—at Trudeau he had learned once more the desire to live.

Detroit. . . . It seemed far away to him now. City of assembly lines, fleshpots, rich man, poor man, the American myth. He had gone under thinking himself a lonely rebel, yet gone under because he had clung to it, trying to scrape up for himself some of its glitter and riches, writhing in his own disillusionment. Yes, it was simple to face it now, he thought cheerfully. With all his easily mouthed ideals he had put fame and fortune on the throne where medicine should have sat alone. But no more.

Never again would any living being lie under his scalpel as a remote and separate organism posing a mere problem in mechanics. A man was flesh and dreams; his knife would save the dreams as well as the flesh.

How many Fishers, Lils were still left at Trudeau! How many tens, how many hundreds of thousands would come after them! Trudeau was behind him, he thought, but for a year his mind had filled with an overwhelming picture of the suffering, the despair, the wasted lives, the careers and talents swept away by tuberculosis—all aided and abetted by some men's refusal to move into the unknown, and some men's mere indifference. But there were others, the real men of medicine—not yea-sayers or nay-sayers, not scramblers after quick profits, but seekers. And he would be among them—he swore it to himself, with his left lung collapsed in his chest but his hopes soaring—*he would be among them.*

Greater than all music, paintings, poems was their gift, the gift he now felt slumbering once more in his hands and brain. Life itself, for all men equally—life for which all music, paintings, poems were made. Yes, he would be among the seekers, the disturbers, the givers of life, those who had raised up his faith again. And out of his renewed faith, as the train sped through the empty fields, there formed in his mind a rich, deep affirmation. He poured out his thoughts on a sheet of paper in a paraphrase of the Apostle's Creed:

> I believe in Trudeau, mighty father of the American sanatorium, maker of heaven on earth for the tuberculous; and in Artificial Pneumothorax, which was conceived by Carson, born of the labors of Forlanini, suffered under Pompous Pride and Prejudice; was criticized by the Cranks whose patients are dead and buried; thou-

stands now well, even in their third stage, rose again from their bed ascending into the Heaven of Medicine's Immortals, they sit on the right hand of Hippocrates our Father from thence do they judge those phthisiotherapists[1] quick to collapse cavities or dead on their job. I believe in Bodington, Brehmer Koch and Brauer in Murphy Friedrich Wilms, Sauerbruch, Stuertz and Jacobaeus, in the unforgiveness of the sins of omission in Collapse Therapy in the resurrection of a healthy body from a diseased one, and long life for the tuberculous with care everlasting Amen.

When he had finished he leaned back in his seat and watched the passing scenery once more. His life, he reflected, was like the train slow in getting started, but now slipping into top speed under a full head of steam.

God, he would soon be thirty-seven What a long winding ruin of time and wasted opportunities lay behind him! But at least it was now *behind* him dead and decently buried in a dozen cities, the rest sloughed off at Trudeau, along with his sputum cup, staff tubercle bacillus, uncertainties, fears. Good-by to the ruins. Good-by to Trudeau. Hail the cities awaiting his return.

[1] T.B. doctors.

PART TWO

The Enemy—Tuberculosis

10

On a cold, clear day in January 1929 Dr. Norman Bethune walked north along Montreal's Park Avenue, turned west on Pine Avenue, and entered the grounds of the Royal Victoria Hospital, an immense, gray building on the southern slope of Mount Royal that looked more like a traditional Scottish castle than a modern hospital.

Somewhere inside the great building Dr. Edward Archibald was waiting for him. Also waiting was his new career as a thoracic surgeon. For two years Bethune had been shaping his life toward the goal that had brought him back again to his homeland. In Detroit, where he had returned briefly from Saranac Lake to wind up his personal affairs, former colleagues had given him a cordial welcome. His reputation, they assured him, though built in such a short time, had endured. He could resume his lucrative practice where he had left off. But he was no longer interested in Detroit, regular practice or the making of money. He told his friends he was finished with general surgery. His sole interest now was pulmonary tuberculosis. "Compression, early compression, and still earlier compression," became his theme song to every doctor he met.

At his old hospital he had performed enough surgery to pay his expenses and provide some ready money. Then he had gone to the New York State tuberculosis hospital at Ray Brook where he worked for close to two years.

At Ray Brook he had applied the lessons learned at Trudeau. He also conducted a series of bacteriological experiments on lung collapse in albino mice in collaboration with two other doctors.* When he was satisfied that he was ready to branch out, he wrote Archibald, and the dean of Canadian thoracic surgery agreed to take him on as his first assistant. He arrived in

* Doctors David T. Smith and J. L. Wilson. The results of their work were published in 1930 under the names of Smith, Bethune and Wilson in the *Journal of Bacteriology*.

more tenderly with a note of deep longing breaking out unexpectedly in the midst of descriptions of Montreal or accounts of his work. In a typical letter he wrote

> I get up at nine, and have coffee, toast and marmalade. Walk to the hospital (25 minutes along Sherbrooke Street) and do clinical work (surgery etc.) till one. Lunch at the hospital. Research from two to three. Then home to bed until six. Up and make dinner. Then bed again at eleven or twelve after an evening of reading. Once in a while go to the pictures or a hockey match.
>
> My health is excellent. I had an X-ray today and it shows no disease or cavity present: nothing except healed scars.
>
> I've often thought I should like to surprise you one morning by waiting at the corner of the street for you as you walked down for the car. I'd just say "Hello — let's go for a walk.

In her replies Frances wondered tactfully whether they had really changed enough to overcome old difficulties. He replied for himself in a gentle note: "I am getting quieter and quieter! You wouldn't know me now. I swear.

As Frances still expressed fears about the possibility of joining him once more, his loneliness began to oppress him. He wrote once:

> Last Sunday, having been in bed with a bad cold, I got very tired of the flat and took the train at 8:35 in the morning with my skis for the mountains (forty miles north of the city). Skied six miles. Lunch in the woods and then back to the station and home again at nine and so to bed.
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> Today I feel much better. The skiing stopped my cough! It was very lovely in the Laurentians — like Switzerland. The train was just like the trains in Vienna. Do you remember when you and I used to go into the country? — The same lovely young people eating sandwiches out of paper bags and going to sleep on each other's shoulders coming home. My skiing was bloody awful. I fell all over the place.
>
> How often can I say it? I love you. I wait for you.
>
> Your
> Beth

Montreal with a confidence based, not on the old mystical notion of predestination, but on accomplishment. He had worked hard for two years preparing himself for tutorship under Archibald. He knew he was ready

The Royal Victoria Hospital is medically administered by McGill University's famous Faculty of Medicine. A few months after Bethune's arrival he was appointed to the University's teaching staff He loved to teach, and his teaching methods were unorthodox. His lectures were remembered by his students as much for his caustic comments on cliché thinking on smug acceptance of what was allegedly known, as they were for his brilliant demonstrations of operative techniques. He enjoyed dramatizing a surgical problem in terms of the *human being* lying on the operating table. He tried to make his students see the *person* as well as the way the scalpel incised or the way the blood vessels had to be tied. His classroom lectures and his operating theater demonstrations were among the most popular at the University

While working at Dr Archibald's thoracic surgery clinic at the Royal Vic, and teaching at McGill, he took time off for occasional trips to Trudeau Sanatorium to lecture and to demonstrate thoracic operative techniques.

Yet immersed as he became in his work and his teaching, he felt a disturbing loneliness during his leisure hours at his small flat, or as he wandered through the strange streets of this second-largest French-speaking city in the world. He knew the cause well Frances.

Since his arrival in Montreal he had often written to her At first he had been uncertain about her reaction, but he had given himself up to the yearning he could no longer suppress. It was his old self that had been entangled in the wreck of their marriage, but his old self he reasoned, was now gone. Everything he had done for two years seemed to draw him back inevitably to her It was as if his life followed two lines she was one the other was his work.

He poured all his loneliness into his letters, writing about everything, even the most minute details of his daily routine as if nothing that he did or saw or thought could be fully experienced unless he shared it with her Where his letters had once been filled with rebukes, or remorse or unhappiness, or apologies, or desperate pleas, now he wrote more calmly

more tenderly with a note of deep longing breaking out unexpectedly in the midst of descriptions of Montreal or accounts of his work. In a typical letter he wrote:

> I get up at nine, and have coffee, toast and marmalade. Walk to the hospital (25 minutes along Sherbrooke Street) and do clinical work (surgery etc.) till one. Lunch at the hospital. Research from two to three. Then home to bed until six. Up and make dinner. Then bed again at eleven or twelve after an evening of reading. Once in a while go to the pictures or a hockey match.
>
> My health is excellent. I had an X-ray today and it shows no disease or cavity present; nothing except healed scars.
>
> I've often thought I should like to surprise you one morning by waiting at the corner of the street for you as you walked down for the car. I'd just say "Hello — let's go for a walk."

In her replies Frances wondered tactfully whether they had really changed enough to overcome old difficulties. He replied for himself in a gentle note: "I am getting quieter and quieter! You wouldn't know me now. I swear."

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Her letters became more affectionate, but still she tried to reason with him. They had failed so miserably before, how could they know it would work out now? She loved him too she too was lonely but she was terribly afraid.

But he could wait no longer "Why should we be separate when we love each other? I can be happy with you. But you not with me? I have been thinking that if you came, we can start out by meeting just as friends, living apart. Perhaps that is the only way for us."

Her next letter by return mail, was only a few lines. Hang the doubts, the misery of waiting! She was packing for the trip to Montreal.

She arrived in the summer and he had arranged everything Though they had discussed living apart, in their last letters, taking their time to find out how matters stood between them, now he rushed her off to a clergyman They were married again.

With Frances back, he felt that all was renewed. He was the full man now Marriage, love, his work—and soon children, children to fulfill them both.

There had been a purpose in everything, he told himself then. A purpose to his mad searchings, disillusionment, collapse and rebirth. All of it had shaped and directed him. He had passed his fortieth birthday The years to come would redeem the years gone to waste. He had little time left but he knew now what he hadn't known when he lay dying in Detroit. Some day he would be gone, but perhaps after him no one ever again would need to die of tuberculosis.

II

THE QUIET OF THE OPERATING THEATER was suddenly shattered by a loud oath. The nurses and assistants looked up to find Bethune standing rigidly beside the operating table, one hand still holding a clamp projecting out of the [illegible] the other raised with a rib stripper He was glaring at

the stripper his eyes dark above the mask that gave his face a ghoulish appearance.

"Blasted idiocy!" He threw the stripper savagely across the room.

After the operation was over he quietly picked up the instrument. In the privacy of his office he laid it on his desk, studied it for a long time, and then made a series of sketches. When he was satisfied he had what he wanted, he called the hospital mechanic.

"Look," he said, tossing him the instrument, "I've got some sketches here I'd like to give you. I want to make some changes in that silly thing." His finger traced the outlines of one of the drawings.

A week later the mechanic returned with the redesigned stripper Dr Archibald himself tested it during his next thoracoplasty pronounced it a definite improvement, and from then on it became standard equipment in the clinic s chest surgery

The designing of a modified rib stripper was only one of many indications, to those who worked with him, that the pupil was quickly becoming the inventor the innovator Working under Dr Archibald convinced Bethune that the latter was one of the greatest thoracic surgeons on the continent. But for the obscure doctor who had set himself the task of completely defeating tuberculosis, the necessity of learning everything to be learned was coupled with the necessity of resting content with nothing. Existing knowledge was the storehouse of the past it had to be thoroughly explored—and constantly extended.

Even as he first began taking over complicated cases from Dr. Archibald he was already reaching out along new paths. His mind teemed with new techniques, new approaches, designs for new instruments, among which the rib stripper was almost incidental. No sooner did he master a surgical procedure than he was dissatisfied with it, searching for possible improvements. Archibald was frequently impressed with his assistant's unrelenting demand for the application of modern technology to the operating theater.

Before he had performed his first operation by himself at the clinic he had already produced a new apparatus for artificial pneumothorax. Dissatisfied even with this, he added a foot pump and a mechanism for drawing off fluid from the pleural cavity thus giving the apparatus a two-in-one

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The quiet of the operating theater was suddenly shattered by a loud oath. The nurses and assistants looked up to find Bethune standing rigidly beside the operating table, one hand still holding a clamp projecting out of the patient's back, the other raised with a rib stripper He was glaring at

got it!" He took from his pocket the pair of shears which he had purchased from the shoemaker and laid it triumphantly on a table. "There. That's the answer. Staring the whole damn profession in the face, and nobody ever thought of it. A gift from the United Shoe Machinery Company to the operating theater."

Frances was accustomed, as of old, to have him come home with new paintings, hats, books or art objects of all kinds. But this was no art object. "I hope you know exactly what you're being so ecstatic about, but all I see is a vicious-looking tool."

"Precisely," Bethune said happily. "A vicious tool. And in two weeks' time it will be a pair of nice, shiny rib shears that will simply sing through the ribs."

During the next few days he spent his spare moments studying the cobbler's shears and drafting sketches. In the end, the Bethune Rib Shears, as it was to be known, appeared for its first test at the clinic. It was essentially the shoemaker's tool, but modified to suit its new purpose. The handles were made nine times longer than the jaws to give powerful cutting leverage, the points were somewhat blunted, a stiffer steel was used, and rubber grips were put on the handles. The instrument was an immediate success.

"The surgeon," Bethune often said, "who can't see the hints and answers that nature and the world thrust into his face should be digging ditches, not massacring the human body."

Before a bit of truth or unexpected knowledge he was humble: as a partisan of the ideas and technical innovations forever tumbling from his agile mind he was aggressive: sometimes, to those about him, even disturbingly violent. In one case, when surgery was being discussed for a patient with adhesions between the lung and chest wall, which prevent the lung from collapsing when compression is desired, he proposed a new method he had developed for cutting the adhesions. The method was highly complicated, and involved the insertion into the pleural cavity of two slender tubes. Through one the operator could both illuminate and look into the pleural cavity. The other was a mechanism which, with delicate manipulation, fastened silver clips on each adhesion. The adhesions were cut through *between* the clips, the clips then acting like

purpose The machine was constructed by the hospital mechanic and was soon being used fairly extensively in other hospitals, including the Gravenhurst sanatorium where Bethune had spent a month in 1926.[1]

One day, after a thoracoplasty during which Archibald operated and Bethune exhausted himself holding the retractors (instruments for holding the wound open) he decided the current technique was altogether too primitive. In the next few weeks he designed two mechanical arms which could be fastened to any table in a matter of seconds, did the job more effectively than any human agency and released an assistant for other work. He called the new device the Iron Interne.[2]

He had a profound admiration for the surgical instruments bequeathed by the masters of surgery and an equally profound contempt for doctors whose minds were sealed to change and the possibilities of new techniques. "They are sinking slowly into quicksand and don't even know it," he would say Men like Sauerbruch, Lilienthal and Stille, for example had developed shears to cut the first rib which he considered works of art. But the all-purpose rib shears made him angry Every time he used it he swore under his breath and retreated to his office to sketch numerous designs for a new instrument. The problem had aroused his interest even back at Ray Brook Sanatorium. But each new type he made up was as clumsy or as heavy or as oversharp as the type it was designed to replace.

He found the key to the problem through the unorthodoxy that so often disturbed other doctors.

He was collecting a pair of shoes that had been resoled one day when he noticed the shoemaker using an interesting device for cutting nails out of shoes. If only resecting ribs, he reflected, were as simple as mending shoes. He turned to leave and was struck by a sudden thought. He asked to look at the shears. The surprised shoemaker passed them over the counter

A few minutes later Bethune burst into the apartment shouting, "I've

[1] Since there were already some 5 pneumothorax machines already in existence produced in various parts of the world by masters of pulmonary surgery techniques, use of Bethune machine was a rare tribute to its inventor

[2] He used it effectively in [illegible] clinic which he later headed himself. It was [illegible] fully described and illustrated in the Dec. 1936 issue of the official publication of the Canadian Medical Association.

As his exploring mind sent him probing to the roots of one problem after another a few men in the profession said that he was too avid for spectacular results, mechanical innovations — and too little interested in the effects on the patient. His public reactions to the whisperings was one of complete indifference: underneath his perpetual composure the insinuations made him writhe. Those close to him knew that there was nothing he would attempt on a patient that he wouldn't attempt first on himself.

During the period in which his left lung was kept collapsed he experimented endlessly on himself with his pneumothorax apparatus, sampling every possible manner of making pneumothorax more efficient and every possible reaction on the patient. He had his own phrenic nerve tied again to revive the memory of what happened to the patient and to test the effectiveness of phrenicectomy. When the problem came up as to whether the presence of blood in the lungs would show on X rays he decided to find out for himself. He withdrew blood from his arm, injected it into the tracheobronchial tree, and had himself X-rayed. The blood cast no shadow on the films. The test was not necessarily conclusive, but it revealed his approach to experimentation and illustrated his readiness to continue in the role of guinea pig as well as investigator.

When one of the patients at the hospital died of obscure symptoms, Bethune was puzzled by strange foreign matter he found in the lungs during the post-mortem. He had a mold made for laboratory tests but these drew a blank. In an effort to discover whether the foreign matter was tuberculous he then injected some of the mold into a rabbit. When nothing happened to the rabbit he rubbed some of the mold onto his own ear. The astonished laboratory technicians were petrified at the thought of what he might have done to himself. A few weeks later he presented himself again. "Well," he asked genially, "what do you think it was?" Looking at him anxiously they confessed they didn't know. Had he discovered anything? "Nothing," he replied. "Not a damn thing's happened. Anyway it wasn't tuberculous, or I wouldn't be so cheerful."

The operation was done not only to observe the regenerative powers of the phrenic nerve but also because he was convinced that his own condition indicated the procedure at the time. This was radical phrenicectomy with resection of the accessory phrenic nerve.

"tourniquets" and preventing the severed stumps from hemorrhaging. With the adhesions gone, the lung could be collapsed by artificial pneumothorax.

The technique was novel and intricate. Dr Archibald was skeptical about it, but Bethune argued for it with the vehemence for which he was noted. In the end Dr Archibald gave in, saying Bethune was as stubborn as a mule, but that if his method didn't work he would be the first to admit it.

The method worked and Bethune soon described and illustrated it for the medical journals. But he was finally convinced, after much experimentation, that it was inferior to the electrocoagulation procedure (cutting through the adhesions with an electrically heated metal implement) and presented his new views frankly in the Canadian Medical Association Journal.

The question of adhesions *in reverse* sent him off into one of his most interesting experiments. There were times when it was desirable, they found at the clinic, as others had also found, to *induce* adhesions between lung and chest wall in order to prevent sections of the lung from collapsing in certain forms of surgery. Many investigators had grappled with the problem, usually with poor results. Bethune developed a number of methods of actually causing adhesions to develop, but most brought complications that made them untenable. In the end he carried on experiments with six dogs and six cats. In these experiments he established that the introduction of ordinary talc-iodine powder on the desired lung surfaces (blown in through a hollow needle) quickly caused these surfaces to fasten themselves onto the chest walls through the quick growth of connective adhesions.[3] These adhesions, in turn, prevented collapse of the lung areas involved. They developed, under Bethune's method, without infection or other complications in the pleural cavity. Dr Archibald considered the Bethune Pleural Poudrage, as it came to be known, "a distinct advance." He also had no hesitation in declaring that the Poudrage and other innovations "make Bethune's genius in mechanical inventions an established fact."[4]

[3] Published later Feb. 1935, *Journal of Thoracic Surgery.*

[4] Letter to authors, 1943.

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about it. So we can conclude that in a negative sense, the experiment was successful."

Whatever the incidents of the experiments indicated to his colleagues, in the chronology of Bethune's rapidly developing career they dovetailed with formal confirmation of his significance as an innovator

In the summer of 1931 a year after he had launched himself along new paths under Dr Archibald, he was buttonholed one day by a middle aged American of dignified bearing at a medical convention in Montreal. The American introduced himself as George P Pilling He had for some time been trying to meet Bethune, he said, and had come to Montreal for two reasons first, to attend the current medical convention, and second, to meet Bethune.

Mr Pilling was the head of the Philadelphia firm of Pilling and Sons, internationally known manufacturers of surgical instruments. I have seen some of your instruments, Dr Bethune," he said approvingly "and I would like to propose a contract under which we would have exclusive rights to the manufacture and distribution of all your surgical inventions.

Next day Bethune arrived at Pilling's hotel room marched in, seated himself at a desk, said, "Let's hear your contract terms," and started sketching on a pad. Pilling watched fascinated at the rapidity with which Bethune sketched. Bethune looked up, "Don't mind me" he said. "I can listen to you while I work."

While Pilling outlined his firm's proposed royalty arrangements, Bethune continued his sketching The American finished, somewhat uncertain that he had made himself understood. Without a break in his sketching, Bethune said, "It's a deal," and then launched into a long dissertation on what was wrong with modern surgical instruments.

The gist of his remarks was that surgery was partly in the van of twentieth-century technological development and partly in the Middle Ages. Surgery's best minds had successfully introduced breath-taking reforms, yet often seemed bogged down by prejudice and inertia. Surgeons too often blindfolded themselves to industrial developments which could make all types of new instruments for the operating room There w ck prejudice, lack of vision, indifference — a need for a

fresh approach, based on the most advanced changes in technology and even to make *demands* upon technology. "We need, in short, a spring cleaning in the operating room," he concluded.

Impressed by the lecture, Mr. Pilling suggested that Bethune write a medical paper on modern surgical instruments.

"I plan to do just that," Bethune announced and handed Pilling a sheaf of papers which bore the rough sketches of his pneumothorax apparatus and half a dozen other instruments.

Mr. Pilling took cordial leave of his visitor and soon his firm was advertising the Bethune Pneumothorax Apparatus, the Bethune Rib Shears, and an assortment of other Bethune instruments. For Bethune it was to presage a new eminence. The pupil had already established himself as a master in his own right. Henceforth, wherever medical men warred against tuberculosis across the continent, the instruments bearing his name were among their indispensable weapons.

12.

THE COURSE HE HAD SET HIMSELF stretched straight ahead. For the doctor and man reborn at Trudeau nothing seemed unattainable. Then suddenly everything collapsed. After one year of their second marriage, Frances asked for a divorce.

For the first few months of their second marriage, all had gone relatively well. Even as the old conflicts emerged once more in the routine of daily living, a deep bond remained between them. But with mixed feelings of fear and frustration, both sensed that the pattern their first marriage had followed was reasserting itself.

Neither one could isolate the exact cause, but Frances especially found herself growing increasingly restive and unhappy.

Were they simply unsuited for one another? Then what about the affection they shared, and which emerged with powerful force during

He later described his inventions in the *Journal of the Canadian Medical Association*, Dec. 1936.

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gle case he and other doctors cured. Now when he asked
the answer beckoned him along many strange, new and
ths.

were full of crisis, depression, bankruptcy unemployment,
erty In October 1929 there had been a tremor on the New
arket, and then much more than a tremor There had been
urse, for undue alarm — so everybody had assured every-
t without undue alarm banks, factories and mines had
kruptcy like a house of cards, and the prophets of "cen-
had followed one another out of the high windows
treet offices.

of course, been aware of some economic malaise that was
discussion, but it was one of those cyclical things, the
and would soon straighten itself out. Now however five
l nothing was straightening itself out. The man who
ure T.B. became obsessed by the fear that all his nice
ical in the operating theater were being undermined
ting theater

ople, a tenth of the entire Canadian population, were
rnment relief. When Bethune read of the living stand-
ployed his indignation rose at the revelation that the
employed lived on a government stipend of $1.20 a
l 80 cents a week per child. That was obviously ridicu-
e to be changed. But when he said so, his colleagues
he were a little touched in the head. Didn't he know
everywhere? And indeed he found that it was. While
ers talked of prosperity around the corner unem-
and fear gripped every continent. Dislocation and
m Spain, where Primo de Rivera ruled through
o Germany where a strange creature and a strange
National Socialism, had seized power to China,
was busily reducing the population by massacres
to Japan, where a militarist clique dreamed of

a exceeded 14,000,000.

their moments of reconciliation? Vaguely both perceived the conflict was a combination of many things.

To begin with there was Bethune's overwhelming sense of dedication. It overflowed into their marriage, making her feel she shared only a corner of his life, stifling her sometimes with the demands it made upon her own life. Like his mother, like Eleanor Dell, she, too, was convinced he was destined for greatness and vaguely broodingly she often felt she was holding him back, that she was "not good" for him. With these feelings came another — that he was "not good" for her!

One afternoon she came home to find him sitting cross-legged on the floor studying a miniature skeleton. She had asked him in the morning if he would mind shopping for her and now she said, "Did you remember to buy the meat for dinner?"

"Yes," he replied absently "it's in the refrigerator"

When she opened the refrigerator door her gaze fell, not on the lamb chops but on a human intestine he had brought home from the hospital to study at his leisure. She gasped in horror and that might have ended the incident, but it didn't. Somehow it stayed with her bringing into focus many things she had kept even from herself. He had his work he lived with it even when things went badly between them. She, however had only their life together and when that fell apart she had nothing

Perhaps even then they might have gone on, content to be together despite all the recurring tensions. But unexpectedly Frances found herself awakening to the possibility of a life with another man that could be as normal and quiet as she had once desired.

She spoke her mind frankly to Bethune. Under the circumstances she felt she could no longer live with him, and asked for a divorce His reaction was a series of climactic gestures. First he staggered her with an outburst of scorching anger Then he staggered her with an outburst of magnanimity If she could be happy only with another man then she must have a divorce immediately

Outwardly composed and the soul of affability Bethune was now quite miserable. He divided his free time between a feverish social whirl and lonely brooding At the hospital his colleagues noticed that he grew daily

more irritable. He kept assuring Frances that her new marriage would have his hearty approval, but when a friend visited his room one day and noticed a huge doll in a corner Bethune said bitterly: "That? That's Alice in Wonderland. Sole issue of my marriage. Frances and I have an understanding about her. She is to spend six months with me and six months with Frances."

Out of all the years of love and longing he had been left only with a doll.

13

In the course of 1933 an opportunity arose for Bethune to take temporary charge of the thoracic surgery department of one of the largest hospitals in the United States, the Herman Kiefer Hospital in Detroit. The hospital's thoracic surgery chief, Dr Edward O'Brien, had been seriously injured in an automobile accident and when the problem of a replacement arose, he suggested Bethune.

Bethune knew the position would only last until Dr O'Brien recovered, but he took it because it gave him the opportunity of doing things his own way as head of a department. With mixed feelings he said good-by to Dr Archibald, "the man who taught me more than any other doctor," and left for Detroit.

Here, for the better part of a year he did all the thoracic surgery on Dr O'Brien's service at the Herman Kiefer Hospital, the Maybury Sanatorium, Northville, and the American Legion Hospital, Battle Creek. The experience was invaluable.

Instead of returning to Montreal on O'Brien's return, Bethune went on a barnstorming trip across the states, demonstrating his surgical techniques and comparing notes with other surgeons.

When he returned to Montreal in the spring of 1934, he considered himself a better surgeon than he had ever been, but there were no hospital appointments available. In the years after Trudeau he had never bothered about building up a private practice because he had concentrated on perfecting himself as a surgeon. He had accomplished what

their moments of reconciliation? Vaguely both perceived the conflict was a combination of many things.

To begin with, there was Bethune's overwhelming sense of dedication. It overflowed into their marriage, making her feel she shared only a corner of his life, stifling her sometimes with the demands it made upon her own life. Like his mother, like Eleanor Dell, she, too, was convinced he was destined for greatness and vaguely broodingly she often felt she was holding him back, that she was "not good" for him. With these feelings came another — *that he was "not good" for her!*

One afternoon she came home to find him sitting cross-legged on the floor, studying a miniature skeleton. She had asked him in the morning if he would mind shopping for her and now she said, "Did you remember to buy the meat for dinner?"

"Yes," he replied absently "it's in the refrigerator"

When she opened the refrigerator door her gaze fell, not on the lamb chops but on a human intestine he had brought home from the hospital to study at his leisure. She gasped in horror and that might have ended the incident, but it didn't. Somehow it stayed with her bringing into focus many things she had kept even from herself He had his work he lived with it even when things went badly between them. She, however had only their life together and when that fell apart she had nothing

Perhaps even then they might have gone on, content to be together *despite all the recurring tensions. But unexpectedly Frances found herself* awakening to the possibility of a life with another man that could be as normal and quiet as she had once desired.

She spoke her mind frankly to Bethune. Under the circumstances she felt she could no longer live with him, and asked for a divorce His reaction was a series of climactic gestures. First he staggered her with an outburst of scorching anger Then he staggered her with an outburst of magnanimity If she could be happy only with another man then she must have a divorce immediately

Outwardly composed and the soul of affability Bethune was now quite miserable. He divided his free time between a feverish social whirl and lonely brooding At the hospital his colleagues noticed that he grew daily

[illegible] the conventional doctor who, he was fond of saying, [illegible] like a cross between a mortician and a maître d'hôtel," he [illegible] up in a pork-pie hat, dark shirt, silk tie, English tweed ja[illegible] [illegible] and gray flannels. At first the nuns were [illegible] but they accepted him, then they loved him. Soon his connection with [illegible] became permanent.

[illegible] in full charge of the chest department, he was in a position to try all his ideas and techniques without hindrance. He refined and [illegible] many of the innovations he had introduced at the Royal [illegible] under Dr. Archibald. He designed and introduced a score [illegible] new [illegible] instruments.

His clinic grew from nothing to the point where it was [illegible] as many as [illegible] tubercular patients in a single year. Under his supervision [illegible] to [illegible] major and minor chest operations were [illegible] being performed annually including as many as 73 [illegible] in a single twelve-month period.

The steady operating routine stimulated rather than [illegible] for experiment and new attacks on tuberculosis. His [illegible] was back, renewing his appetite for work. He could stay up [illegible] with friends, operate in the morning, do experimental work [illegible] noon, and make the round of his patients in between. [illegible] a case for which there was no precedent in medical [illegible] with breath-taking audacity.

In one case he was called in as consultant for an elderly [illegible] at the Royal Victoria Hospital. The patient had been [illegible] years before for the draining of a large [illegible] chest space. Now he had severe pain [illegible] in the [illegible] was established that the infection had [illegible] involved was the advanced age of the patient and [illegible] not be able to withstand extended surgery. [illegible] was indicated when Bethune removed [illegible] the chest by aspiration (literally sucked out the [illegible]). Laboratory tests showed the presence of [illegible] but no tubercle bacilli. Studying the [illegible] and taking [illegible] patient's age and the absence of tuberculosis, Bethune decided on a [illegible]

he had set out to do but in the process, as he wrote one of his friends, he had gone "stone broke."

The man whose surgical instruments had won numerous testimonials, who had just demonstrated his advanced techniques to American doctors, whose medical articles were closely studied — was now looking for a job. He began a series of formal letters to hospitals, sanatoriums and friends, announcing that his services were available. A number of hospitals replied, each expressing interest each promising that "when the occasion arises, in view of your excellent credentials, we will keep you in mind."

It was a time of universal retrenchment. Economic depression was stalking the continent. The incidence of sickness was rising sharply among all sections of the population but the wealth of America was rusting hospital staffs were being cut, and there seemed no room anywhere for a surgeon who had already made his mark.

Then, unexpectedly, he received a letter from the Sacré Cœur hospital, in reply to his routine application, granting him an appointment as head of a new chest surgery department the hospital was setting up.

He accepted, and wrote Dr B. in a swift rise of good spirits

> I was appointed Thoracic Surgeon and Bronchoscopist to the Sacré Cœur Hospital in Cartierville 450 beds, 20 miles from Montreal. French-Canadian and Catholic. $1,200 a year one day a week, so the strain is less strained. My title is *Chef dans les Services de Chirurgie Pulmonaire et de Bronchoscopie!* I am going to have a nice big white cap made with "Chef" marked in front Really I am delighted. No chest surgery has been done here up to date with the exception of phrenics as curiosities. I cauterized some adhesions there yesterday and the chorus of oh s and ah s from the nuns rose like a chant at the high altar

Sacré Cœur stood behind great lawns and gardens along the Cartierville highway While there had been no chest or pulmonary surgery done at the hospital, now under Bethune s direction the new department became one of the most important of the hospital s services.

He was in many ways a disturbing phenomenon in the Catholic insti-

doctors, public education enforced periodic physical and X-ray examinations, early diagnosis, early bed-rest, early compression, isolation and protection of the young are our remedies."

His attitude towards conservatism and inertia in the profession grew more and more critical. The refusal to move forward, he declared, was taking its toll in lost lives and in the end forcing expenditure of state money on illnesses and hospitalization that could have been avoided. Those who opposed "active treatment" for early precavernous and frankly cavernous tuberculosis were merely echoing "objections raised at the beginning of the century against operations for appendicitis." Precautionary measures, early diagnosis, early treatment and full utilization of surgical procedures—these were his constant cry

At Sacré Cœur his ideas brought encouraging results. Cases which ten, perhaps even five years earlier might have been considered hopeless were either cured by surgical techniques or substantially improved. But as he studied the figures on incoming patients and the percentage of those released as cured, a strange contradiction at first vague but then unmistakable, began to vex him. "There's something wrong," he would say. "The more advanced our curative surgery the more cases of T.B. we get. Precisely at the moment when scientific knowledge on how to attack the disease has reached its highest point, the incidence of the disease has equally reached its highest point." In the province of Quebec there was a higher percentage of T.B. cases than in any other Canadian province. There were more victims than the hospitals and sanatoriums could accommodate. The province with the lowest standard of living had the highest T.B. rate. And throughout the country in the city slums and bankrupt farm hinterlands, there were many thousands of people slowly succumbing before the disease without even knowing they had it.

Why? The question made him uneasy even as he continued to expound his theory of early lung compression. His search for the answers led him to another disease that was engulfing the world—a disease more deadly than the tubercle bacillus and swifter than medieval cholera

Like any other serious medical practitioner he had always known that T.B. fed on poverty. But now poverty for some reason, seemed to be spreading everywhere, spewing forth ten new cases of T.B. infection

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The papers were full of crisis, depression, bankruptcy, unemployment, relief, controversy. In October 1929 there had been a tremor on the New York stock market, and then much more than a tremor. There had been no need, of course, for undue alarm — so everybody had assured everybody else — but without undue alarm banks, factories and mines had fallen into bankruptcy like a house of cards, and the prophets of cautious optimism had followed one another out of the high windows of their Wall Street offices.

Bethune had, of course, been aware of some economic malaise that was causing a lot of discussion, but it was one of those cyclical things, the economists said, and would soon straighten itself out. Now, however, five years had passed, nothing was straightening itself out. The man who had set out to cure T.B. became obsessed by the fear that all his nice theories, so practical in the operating theater, were being undermined outside the operating theater.

One million people, a tenth of the entire Canadian population,* were dependent on government relief. When Bethune read of the living standards of the unemployed his indignation rose at the revelation that the families of the unemployed lived on a government stipend of $1.20 a week per adult and 80 cents a week per child. That was obviously ridiculous and would have to be changed. But when he said so, his colleagues looked at him as if he were a little touched in the head. Didn't he know that it was the same everywhere? And indeed he found that it was. While presidents and ministers talked of prosperity around the corner, unemployment, bankruptcy and fear gripped every continent. Dislocation and collapse stretched from Spain, where Primo de Rivera ruled through military dictatorship, to Germany, where a strange creature and a strange movement, Hitler and National Socialism, had seized power, to China, where Chiang Kai-shek was busily reducing the population by massacres of opposition elements, to Japan, where a militarist clique dreamed of ruling all Asia.

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To Bethune it began to appear as if some mass mania had laid hold of the world. Night seemed to be day and day never seemed to come. "Pull in your belts," cabinet spokesmen of ample girth advised, and stopped counting when the number of unemployed around the globe hit 40,000,000. It was a simple matter of overproduction, they said, but everywhere the people had nothing

In the world at large he noted a disturbing contradiction. Millions were without clothes, and the United States ploughed under its cotton fields. Tens of millions were hungry but Canada burned its wheat. On street corners men begged a nickel for a cup of coffee, but Brazil dumped its coffee into the ocean. In Montreal's working-class districts the children were bowlegged with rickets, but oranges from the South were destroyed by the carload. And from the head of the Canadian Medical Association came a warning that disaster lay ahead for the profession and the people of Canada unless emergency measures were taken to provide medical services for the majority of citizens who couldn't afford to pay and for the doctors who couldn't afford to treat their patients without payment.

One night Bethune stood before the easel he had set up in the living room of his apartment, daubing away idly trying to catch the night scene through his large windows overlooking Beaver Hall Square. He had had the windows put in himself, replacing smaller ones which had not let in enough light. At night he could look out and see the lower city at the foot of Beaver Hall Hill, the lights of the harbor and the massive skyscrapers which were centered just south and west of the apartment. From his window the sound of tugboats on the St. Lawrence were distinct and mournful. Northwards ran St. Catherine Street, the busiest street in the city and beyond that rose Mount Royal. He had often stood there, feeling the city around him, and now he tried to catch the feeling of it on canvas.

He daubed away but was dissatisfied with what he had painted and replaced the canvas with a clean one. Then he sat down at his typewriter He had for some time been turning over in his mind a statement of the doubts and fears gnawing at him. He thought of the hundreds of people coming into his ward, and wondered whether their charts should

be labeled "pulmonary tuberculosis" or "economic poverty" At Trudeau it had seemed clear to him that surgery would be the answer to T.B. Now nothing seemed clear except Yes, one thing, at least, seemed clear

Tuberculosis, he wrote, was the specific response of the human organism to a specific environment. Well, that was hardly new: it had to be stated more precisely Trudeau had written: "There is a rich man's tuberculosis and a poor man's tuberculosis." That, he reflected, was what now needed to be said again, and would have to be shouted from the rooftops. "There is a rich man's tuberculosis and a poor man's tuberculosis. The rich man recovers and the poor man dies. This succinctly expresses the close embrace of economics and pathology" The conditions breeding T.B. in man were spreading "Let him persist in continuing in such an environment and he will die!

Men, women and children were dying every year of T.B. He had no way of helping them. As a surgeon he never even saw them, and even if it were physically possible to get enough doctors to handle them, others would follow from the same homes, the same streets, the same cities. It was necessary to sound a warning!

"The incurable tuberculous who will fill our sanatoriums for the next five years are now walking the streets, working at desks with early curable tuberculosis Lack of time and money kills more cases of pulmonary disease than lack of resistance to that disease. The poor man dies because he cannot afford to live. Here the economist and sociologist meet the compressionist on common ground.

He reread what he had written with a sense of frustration. What did he know of economics or sociology? He had spent most of his life becoming a surgeon, as a surgeon he could heal the human body not the whole damn stupid mess called society "We, as physicians," he continued, can do but little to change the external environmental forces which predispose to infection and re-infection. Poverty poor food, unsanitary surroundings, contact with infectious foci, overwork and mental strain are beyond our control. Essential and radical readjustments of these are problems for the economists and sociologists."[1]

[1] Published later in Canadian Medical Association Journal.

He reread the article many times. Did it say anything new and worth while? Did it make sense? Or was he moving into still another blind alley?

He felt dissatisfied with what he had written, with himself, with everything. Perhaps he was simply *thinking* too much about things he didn't understand. He went back to his easel.

He painted long into the night, at breakneck speed, his depression gradually slipping away. When he was finished he felt tired, but relaxed. He stood away from the easel and studied his work with satisfaction.

Dominating the center of the canvas was an impressionistic Godhead, a powerful embodiment of justice and impartiality. Before him, humbly fearfully stood a surgeon, awaiting the final verdict. Surrounding the surgeon were the spirits of the men and women he had treated on earth, pointing at him, accusing him, crying out to God in their agony and wrath.

Across the back of the canvas he penciled the title "The Surgeon at the Day of Judgment."

14

HE HAD BECOME A SUCCESSFUL SURGEON, a social lion, an available bachelor, a prize catch for a never-ending cycle of soirees. Snobs, cynics and socialites pursued him, yet felt out of their depths when they captured him.

Among some of his colleagues, for whom the pillars of life were a comfortable home, payment of the mortgage, insurance and a growing bank account, his improvidence was staggering. He earned a lot of money—and spent it all. Even Frances, after all these years, could still gasp at some of his gifts. He bought everything that pleased him, no matter what the cost. He was especially a boon to struggling young Montreal artists, whose work he bought on sight if it pleased him. To those who found his freehanded dispensing of money disturbing he had a ready reply: "*Money? Only the medium of exchange.*"

When he met a colleague given to pontificating about his profession

he liked to say that the surgeon was no different from a plumber except that he wasn't always as skilled. If he was with a group of people who bored him he left without ceremony or excuses. "He's a terribly exhausting man to know," one of his friends said resignedly after one of his typically swift arrivals and departures.

His apartment on Beaver Hall Hill was furnished with sybaritic touches — an echo of his early hedonistic days in London. The furniture was of his own design. The paintings included his own and those of many young Canadian artists. Books overflowed into every room. The *objets d'art*, the rugs, the drapes had been selected with an eye for color design and quality. But just as his turtle-neck sweaters satirized the dinner jackets of stuffy acquaintances, so the sensuous appearance of his home was lightened by a satiric quality all his own. His diplomas, often the carefully displayed self-advertisement of the doctor, were consigned to his bathroom walls.

Nothing that pleased him was too expensive for his purse. Yet all his friends knew that there was nothing that pleased him that he didn't delight in sharing. Every book in his astonishing library carried a simply designed bookplate with the legend, "This book belongs to Norman Bethune and his friends." As with his books, so with his home. Artists who labored in obscure poverty, actors who in the existing state of Canadian arts dreamed only of earning enough money to go to New York or London, bright young people who had yet to taste economic security — all were welcome, and all discerned a genuine affection beneath the airy affability with which he received them. Sometimes they would congregate while he was dressing in his bedroom. They would read his books, play his records, and then he would come out, and say cheerfully: "I'm off to attend a patient. There's food in the refrigerator and liquor in the bathroom. Have fun while I'm away."

He startled even his closest friends with Shavian sallies against the smugness of ownership. One evening a young lady brought to his apartment by a mutual acquaintance was struck by a pair of vivid drapes over the window. They were long, full and made of blood-red velveteen.

"You like them?" he asked.

"They're wonderful!"

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His apartment on Beaver Hall Hill was furnished with sybaritic touches—an echo of his early hedonistic days in London. The furniture was of his own design. The paintings included his own and those of many young Canadian artists. Books overflowed into every room. The *objets d'art* the rugs, the drapes had been selected with an eye for color design and quality. But just as his turtle-neck sweaters satirized the dinner jackets of stuffy acquaintances, so the sensuous appearance of his home was lightened by a satiric quality all his own. His diplomas, often the carefully displayed self-advertisement of the doctor were consigned to his bathroom walls.

Nothing that pleased him was too expensive for his purse. Yet all his friends knew that there was nothing that pleased him that he didn't delight in sharing. Every book in his astonishing library carried a simply designed bookplate with the legend, "This book belongs to Norman Bethune and his friends. As with his books, so with his home. Artists who labored in obscure poverty actors who in the existing state of Canadian arts dreamed only of raising enough money to go to New York or London, bright young people who had yet to taste economic security—all were welcome, and all discerned a genuine affection beneath the airy affability with which he received them. Sometimes they would congregate while he was dressing in his bedroom. They would read his books, play his records, and then he would come out, and say cheerfully: "I'm off to attend a patient. There's food in the refrigerator and liquor in the bathroom. Have fun while I'm away

He startled even his closest friends with Shavian sallies against the smugness of ownership. One evening a young lady brought to his apartment by a mutual acquaintance was struck by a pair of vivid drapes over the window They were long, full and made of blood-red velveteen.

"You like them?" he asked.

"They're wonderful!

jewels. The poor who comprise fifty per cent of our population, cannot pay and starve we, the doctors, cannot sell, and suffer The people have no health protection and we have no economic security This brings us to the point of the two aspects of this problem.

There are in this country three great economic groups: first, the comfortable second, the uncomfortable third, the miserable. In the upper bracket are those who are moderately uncomfortable and insecure and in the lower those vast masses, not in brackets but in chains, who are living on the edge of the subsistence level. These people in the lower income class are receiving only one-third of the home, office and clinic services from physicians that a fundamental standard of health requires. Only fifty-five per cent of as many cases are being hospitalized as an adequate standard would prescribe, and only fifty-four per cent of as many days are being spent in hospitals as are desirable.

In short, one has to suffer a major surgical catastrophe to have even approximate adequate care. The report of the Committee on the Cost of Medical Care (American Medical Association) showed that 46.6% of people whose income is less than $1200 a year received no medical, dental or eye care whatsoever in a year If this is combined with those whose income is $10,000 or more (13.8% of such persons received no similar care) we are faced with the appalling fact that 38.2% of all people, irrespective of income, received no medical, dental or eye care whatsoever What is the cause of this alarming state of affairs? First, financial inability to pay is the major cause second ignorance third, apathy fourth, lack of medical service.

Enormous accumulation of scientific knowledge has made it practically impossible for any one man to have an entire grasp of even the facts — much less their application — of the sum total of medical knowledge. This has brought specialization in concentrated centers of population. The general practitioner unsupported by specialists, knows that he cannot give the people their money's worth, yet the financial cost of specialization bars many from proceeding to such fields. The necessity to make money after a difficult financial struggle to pay for medical education drives the young doctor too often into any form of remunerative work, however uncongenial it may be. There he is, caught up in the coils of economics, from

which not one in a thousand can ever escape. The fee-for-service is very disturbing morally to practitioners. The patient is frequently unable to appraise correctly the value of the doctor's service or disservice. Perrot and Collins in 1933, in an investigation of 9130 families in America, found the depression poor had a larger incidence of illness than any other group. Also that 61% of all physicians calls to such a class were free, that 33% of calls to the moderately comfortable were free, and that 26% of calls to even those comfortably well off were not paid for

Permit me a few categorical statements, for dogmatism has a certain role in the realm of vacillation

The best form of providing health protection would be to change the economic system which produces ill health, and to liquidate ignorance, poverty and unemployment. The practice of each individual purchasing his own medical care does not work. It is unjust, inefficient, wasteful and completely outmoded. Doctors, private charity and philanthropic institutions have kept it alive as long as possible. It should have died a natural death a hundred years ago, with the coming of the industrial revolution in the opening years of the 19th century In our highly geared, modern industrial society there is no such thing as private health—all health is public. The illness and maladjustments of one unit of the mass effects all other members. The protection of the people's health should be recognized by the Government as its primary obligation and duty to its citizens.

Socialized medicine and the abolition or restriction of private practice would appear to be the realistic solution of the problem. Let us take the profit, the private economic profit, out of medicine, and purify our profession of rapacious individualism. Let us make it disgraceful to enrich ourselves at the expense of the miseries of our fellow men. Let us organize ourselves so that we can no longer be exploited as we are being exploited by our politicians.

Let us redefine medical ethics—not as a code of professional etiquette between doctors, but as a code of fundamental morality and justice between medicine and the people.

In our medical societies, let us discuss more often the great problems of our age and not merely interesting cases the relationship of medicine to the State the duties of the profession to the people; the matrix of eco-

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socialized medicine. They are bastard forms of socialism produced by belated humanitarianism out of necessity.

The three major objections which the opponents of socialized medicine emphasize are:

First: Loss of Initiative. Although it is alleged the human donkey probably needs, in this state of modern barbarism, some sort of vegetable dangled in front of his nose, these need not be golden carrots: a posy of prestige will do as well.

Second: Bureaucracy. This can be checked by democratic control of organization from bottom to top.

Third: The Importance of the Patient's Own Selection of a Doctor. This is a myth: its only proponents are the doctors themselves — not the patients. Give a limited choice — say two or three doctors, then if the patient is not satisfied, send him to a psychiatrist! Sauce for the goose is sauce for the gander — the doctor must also be given some measure of selection of patients! Ninety-nine percent of patients want results, not personalities.

Our profession must arouse itself from its scientific and intensely personal preoccupation and become socially-minded, realizing the inseparability of health from economic security.

Let us abandon our isolation and grasp the realities of the present economic crisis. The world is changing beneath our very eyes and already the barque of Aesculapius is beginning to feel beneath its keel the great surge and movement of the rising world tide which is sweeping on, obliterating old landscapes and old scenes. We must go with the tide or be wrecked.

The people are ready for socialized medicine. The obstructionists to the people's health security lie within the profession itself as well as outside it. Recognize this fact. It is the all-important fact of the situation. These men with the mocking face of the reactionary or the bitterness of the futilitarian proclaim their principles under the guise of "maintenance of the sacred relationship between doctor and patient," "inefficiency of other non-profit nationalized enterprises," "the danger of Socialism," "the freedom of individualism." These are the enemies of the people, and make no mistake — they are the enemies of medicine too.

The situation which is confronting medicine today is a contest of two forces in medicine itself. One holds that the important thing is the mainte-

nomics and sociology in which we exist. Let us recognize that our most important contemporaneous problems are economic and social and not merely technical and scientific in the narrow sense that we employ the words.

Medicine, like any other organization today whether it be the Church or the Bar, is judging its leaders by their attitude to the fundamental social and economic issues of the day We need fewer leading physicians and famous surgeons in modern medicine and more farsighted, socially-imaginative statesmen.

The medical profession must — as the traditional, historical and altruistic guardians of the people's health — present to the Government a complete, comprehensive program of planned medical service for all the people. Then, in whatever position the profession finds itself after such a plan has been evolved, that position it must accept. This apparent immolation as a burnt offering on the altar of ideal public health will result in the profession rising like a glorious Phoenix from the dead ashes of its former self

Medicine must be entirely reorganized and unified, welded into a great army of doctors, dentists, nurses, technicians and social service workers, to make a collectivized attack on disease and utilizing all the present scientific knowledge of its members to that end. Let us say to the people — not "How much have you got?" — but "How best can we serve you?"

Socialized medicine means

First, that health protection becomes public property like the post office, the army the navy the judiciary and the school.

Second that it is supported by public funds.

Third, that service is available to all, not according to income but according to need. Charity must be abolished and justice substituted. Charity debases the donor and debauches the recipient.

Fourth, its workers are to be paid by the State, with assured salaries and pensions.

Fifth, there should be democratic self-government by the health workers themselves.

Twenty-five years ago it was thought contemptible to be called a socialist. Today it is ridiculous not to be one.

Medical reforms, such as limited health insurance schemes, are not

the maximum health, the opportunity to live normally and to earn a livelihood at trades making no excessive demands on them.

The plans he showed Marian had a special appeal to her artist's eye. They included designs for homes, parks, children's playgrounds, dispensaries, hospitals and industrial buildings. The actual cost if state-sponsored, he stressed, would come to less than the money Canada eventually had to spend on repairing the damage wrought by disease. That was the final penalty for Canada's failure to act effectively against T.B. in the first place. He was not content merely to champion the principle of the citizen's right to health and security. With the graphic approach of the artist and the technical approach of the doctor he felt impelled to show on paper that it was possible — and cheaper in the long run — for people to live in pleasant surroundings, with the sun playing through the window and a garden behind the back porch.

But his dream, circulating soon among government officials and community leaders, came up against the chain reaction of cause and effect that had so often swept him away from his moorings in a vicious cycle. When someone inquired one day what had happened to his plan, he unfurled the daily paper and pointed to the headlines: FASCIST PLANES BOMB MADRID.

"That's what is happening to it," he said. "The cities of the future lie buried under the rubble of the cities that never had a chance. I have a child at the hospital who is dying because the human lung was not created to breathe slum air. But if I take my plea to Ottawa on her behalf, if I say to the men in office: Here are plans for a city in which my child can live and grow without fear, whom will I be addressing? The very men who sit down to their comfortable dinners with a comfortable conscience and don't give a damn for the cities now not only diseased but dying under the bombs.

So it was all one: the child at the hospital, the dream of the doctor and artist, the falling bombs, the indifferent politicians, the cities of Spain now crying out to the world for aid.

He was haunted by the headlines and the face of a child.

The fascists were moving towards Madrid, and in a bed at Sacré Cœur

nance of our vested historical interest, our private property our monopoly of health distribution. The other contends that the function of medicine is greater than the maintenance of the doctor's position, that the security of the peoples health is our primary duty, that we are above professional privileges. So the old challenge of Shakespeare's character in Henry IV still rings out across the centuries "Under which King, Bezonian, stand or die!"

21

A FEW DAYS LATER Bethune scrawled some memos on his desk pad:

> 1 Get all background material on war in Spain. 2 Have the Case for Socialized Medicine retyped for circulation and comment. 3: Prepare select list of people to be sent plans for model city for tuberculous rehabilitation after release from sanatoria. 4 Look up medical literature for any previous experience with condition similar to that of the child.

War the imbroglio of politics, projects for the rehabilitation of broken lives, the fate of nations, the plight of a single child.

To someone looking over his shoulder his jottings might have seemed curiously disjointed. At one time he himself would have tabulated them as separate areas of concern. Now he found them all interwoven, all demanding consideration and action as related whorls of the same intricate pattern.

While he had been launching the Group for the Security of the People's Health he had spent many an evening designing an entire city He had shown sketches to his friend, fellow artist and now co-worker at the Children's Art School, Marian Scott. "My purpose," he had explained, "may seem novel, yet I'm satisfied it's also practical." In Russia they had the special day and night sanatoria for sanatorium "graduates"—patients who were sufficiently recovered to return to work, but still needed surveillance, attention, and lighter work. In Canada there were no provisions for that type of care. But, he asked, why should it be impossible to build completely new towns, with suitable housing, parks and light industries, all catering to the needs of those who had suffered from T.B.? The purpose, of course, was to provide them with an environment offering them

the maximum health, the opportunity to live normally and to earn a livelihood at trades making no excessive demands on them.

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eyes burning in his young face. "*Viva yo!*" he cries. "Long live *me!*"

There is laughter: they all understand.

"*Viva!*" they cry. For themselves, for these strangers from abroad, for Spain, for the world.

The word spreads, this morning of December 23, 1936, through the lines in Casa del Campo. From somewhere beyond the seas a friend has come with a miracle for the soldiers of the Republic.

Tomorrow it will be broadcast over all Madrid, reaching out to Teruel, Guadalajara, Valencia, all the fronts, to the women who wait in dread for sons and husbands, and finally, beyond the borders of Spain, to all the world.

For the first time since humans learned to kill their brothers a man had appeared on the battlefield to reverse history—*to give blood not to shed it.*

24

He had arrived in Madrid on November 3, a cold rainy morning, and registered at the Hotel Gran Via, just opposite the Telefónica building. In the lobby he was met by a pleasant-looking, fair-haired man who introduced himself as Henning Sorensen, in Madrid as correspondent for the *New Commonwealth* and *Canadian Forum*.[1]

Outside the hotel soldiers patrolled the streets in twos and threes. All the streets leading to the city boasted barricades. Bethune asked Sorensen if the situation was as bad as they had told him it was in Valencia.

"As bad or as good," Sorensen replied. "Madrid is Madrid, and Valencia is, after all, only Valencia. The fascists have entered University City. Madrid women are busy filling bottles of gasoline. The people have barricaded all the streets. The fascists will have to take the city house by house."

[1] A newspaper and a magazine both reflecting the viewpoint of the Co-operative Commonwealth Federation.

The press offices were on the third floor of the Telefónica. Bethune and Sorensen called there that afternoon to get the latest news. Suddenly the building shook, hit by a shell; everyone looked up, waited, and then returned work.

Bethune could look down from the windows and see the street-car attendant on the corner switching the rails for a tram to make a turn. On the same corner the subway kiosk was plastered with posters urging the Madrileños to join the Fifth Regiment, to evacuate their children, to help the peasants gather in the wheat.

Sorensen chuckled. "You can take a tram or a subway and get within a hundred yards or so of the trenches. You see, Madrid goes about its business as usual. It's true that the situation is serious but I doubt if Madrid will fall."

As Bethune walked the streets that day he could see that the rest of Madrid shared Sorensen's optimism.

With Sorensen as guide and interpreter he set out to find the best method of organizing Canadian medical aid for the Loyalist troops.

He made a swift tour of the city's military hospitals where the tensions and uncertainties were such that he could get few definite answers to the questions he asked about the medical situation at the front. To get the answers he went into the trenches of University City itself, visiting the fronts outside Madrid. He inspected casualty stations behind the lines and worked with army surgeons at several base hospitals. Here he studied the types of wounds the soldiers suffered and kept notes on the percentage of fatalities and the recoveries after surgery.

In a cellar headquarters in University City he met General Kleber who had once lived in Canada and was now in command of the International Brigades helping to defend Madrid. Kleber gave him a résumé of the military situation, declared Madrid would hold out, and referred him to one of the chief medical officers of the International Brigades, a Czech doctor by the name of Erwin Kisch.

Dr Kisch welcomed him enthusiastically in broken English, overjoyed to hear that a thoracic surgeon of Bethune's standing was available for service. "We must put you to work at once!" he cried.

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leading but an armed struggle. He was afraid that Caballero was not up to the situation, and implied that the UGT leader was resisting demands for a unified command. Army units in various parts of the country (particularly in the Aragon) were operating on their own. Certain anarchist battalions went into action only under orders from their own-appointed commanders. Without a central, unified command, Contreras held, the Republic could never hope to defeat the mechanized units of Germany and Italy.[1]

I could not help but remark on the difference between the spirit of Madrid and that of Valencia or Barcelona. In reply Carlos made the point that the spirit was best where the fighting was most bitter. The Communist Party was stronger in Madrid than anywhere else in Spain, and the bulk of the Socialist Youth Organization, also was in Madrid.[2] The lessons of the war were moving the Socialist rank-and-file to the left, while Caballero seemed to be moving toward a closer alliance with the Anarchists and certain right-wing Republican elements. Carlos saw Caballero's moves as an attempt to offset the growing influence of the left-wing Socialists, Communists and the liberal Republican groups who demanded a dynamic program to transform the unorganized mass of militia into an efficient, unified fighting organization.

Carlos didn't think the Popular Front was threatened but seemed to indicate that a new alignment within the Popular Front was necessary if Spain's resources were to be properly organized to fight a prolonged war. It was evident that the traitorous army generals had been defeated. It was also evident that Germany and Italy were determined to prolong the war as long as they could, not only to guarantee their Mediterranean flank, but to use Spain as a testing ground for their equipment and their strategy.

When we came to the question of what I could do for Spain, Contreras said there were a number of alternatives. I could function as a surgeon in one of the hospitals, or for the International Brigades, or I could establish a distinct Canadian Medical Unit to work in the cities or at the front. He assured me that anything I decided to do

[1] A unified command came into existence in May 1937, when Caballero resigned and was replaced as Premier by Juan Negrin.

[2] The 200,000 members of the Socialist Youth had enrolled en bloc in the Spanish Communist Party a few months before.

For Kisch, who had been in Spain two months, operating constantly it seemed clear where Bethune was needed. For Bethune himself it had not yet become clear. He asked for a few more days to make up his mind and the interview ended coolly.

On November 6, he went to the headquarters of the Fifth Regiment to confer with Carlos Contreras, its political commander.[2]

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would be helpful, told me to see him if I needed any help in anything I decided to do, and then left to attend to his urgent business. He returned to Madrid next morning but Sorenson and I went to see the chief of the Sanidad Extranjera (Foreign Health Service, attached to the International Brigade) a little Frenchman who suggested I work with him. It was something to consider and we left Albacete with him the following day (November 8) to "inspect the front lines." We never got anywhere near a front line and we lost our way four times. That was enough for me. We wasted two days with him for nothing I told him as politely as I could that I had other plans, and we returned to Madrid, luckily getting transportation on a truck.

Henning and I arrived in Madrid on the 11th and I made another tour of the casualty stations. By now I had a feeling about what had to be done.

When he had become certain of what was missing in the army's medical services, he went back to Dr Kisch to outline the novel project that had taken shape in his mind. In all modern wars, he pointed out, even the most *highly organized medical services suffered from a serious defect.* Never had provisions been made for those wounded who bled to death on the battlefield, or between the trip from the front to the base hospital, or who were so weakened by loss of blood or shock that they were unable to survive surgery once they arrived at a base hospital. In Barcelona, Dr Duran Jorda had done great work in storing blood and organizing blood banks. But the main problem had not yet been tackled decisively *The problem was to provide transfusion directly at the front as close to the battlefield as possible* Bethune was convinced it was feasible, and would result in a sharp decrease in deaths among the wounded. He was therefore proposing the organization of a *mobile* blood transfusion unit that would gather blood from volunteers in the cities, store it make it available to casualty stations and field hospitals, and above all, provide transfusions at the front while fighting was in progress.

For a long time Kisch sat back in his chair staring at Bethune. "If you can do it," he said at last, a new note of respect in his voice, "you will be making medical history"

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At the Socorro Rojo[1] Headquarters in Valencia, Bethune outlined his plans to the top officials who had to approve them on behalf of the government. They listened to him carefully among them two leading Spanish doctors, then looked at one another and finally gave their opinion.

"Impractical.

They studied his figures again, wrestled with the uncomfortable statistics of men who might have been saved but had died from loss of blood or shock.

One of the older Spanish doctors looked about at his colleagues, then at Bethune. "But as you say 'perhaps impossible, but necessary And if necessary then not impossible. And if not impossible, then it is made so because it required somebody to try so.

They decided without having to make a decision. "How soon," the old doctor asked, can you get your plans into operation?"

As fast as it takes to get to Paris and London, and back again with the necessary equipment. And as soon, after that, as you can give me a place to work along with technicians, doctors, nurses.

An hour later Bethune sent a long cable to the Spanish Aid Committee in Toronto. He outlined the situation at the front, his plans, the government's approval, the methods he proposed to use, the technical innovations he intended to introduce. He ended the cable with an appeal for immediate action.

> Need a lot of apparatus, sterilizers, instruments in sets, microscopes, et cetera. Have many new ideas for improved apparatus. Am leaving with Sorensen for Paris and London to buy necessary equipment. Cable as much money as possible to committee representative in Paris.

The next morning he set out for Paris with Sorensen without waiting for a reply When he arrived he found ten thousand dollars had been cabled from the Canadian Committee with a message expressing approval of the project and promising him full financial support.

[1] Socorro Rojo was a Spanish trade union relief organization which functioned as the only effective medical service in Loyalist Spain until the newly organized Sanidad Militar took over its functions in the spring of 1937.

worked in secret, sometimes suffering imprisonment and exile. In 1613 William Harvey changed the course of medicine with his discovery of the circulation of the blood. Only now could the dream of the anonymous Roman doctor become a reality To make it a reality many men worked and searched and experimented — and added to their reverence of life the possibility of preserving it.

In England, half a century after Harvey's discovery Richard Lower transfused blood between two dogs by running quills from the cervical artery of one to the jugular vein of the other In Paris, at the same time, Jean Baptiste Denis transfused the blood of a lamb into the veins of a fifteen-year-old boy suffering from anemia and some unknown fever When his patient recovered, French medical men were highly impressed and Denis continued to transfuse for many ailments. His very success, however, proved his undoing in the end. Noting that some patients fell into a state of shock after receiving blood he decided to attempt the cure of a mental patient by transfusion. While the shock brought about by incompatible blood is different from that produced by insulin injections or electric charges, Denis was anticipating a therapeutic approach for certain forms of mental illness by 250 years. But he was working in the dark, though working better than he knew When some of his patients died, prejudice, fear and conservatism rose up in righteous anger· all blood transfusions were banned in France and the ban spread to most of Europe.

For almost 200 years medicine then turned away from the mystery it didn't understand. Transfusions became the black market calling of quacks. Human blood was tampered with for every purpose, except the simple one of maintaining the body's normal supply or overcoming the effects of hemorrhage, shock, burns. Respectable doctors bled their patients for everything from pimples to plague. Unprincipled frauds secretly prescribed transfusions for exactly the same ailments. The orgy of black magic reached its solemn, stupid climax with the announcement of a German doctor that he had discovered the secret of domestic bliss in the blood. Where there were difficulties between husband and wife, he declared, transfusion of the wife's blood into the husband, and vice versa would immediately end all discord. In the existing state of medical knowledge it would have ended husband and wife as well.

The disrepute which held up further investigation was merely a reflection of the disrepute in which life itself was held. The French Revolution had to put a new emphasis on the dignity of life before the men of science could counterattack the obscurantists. On the barricades of 1792 the proclamation of Liberty Equality Fraternity changed the course of history. Henceforth the dead rot of feudalism was challenged. From America, the Continent had heard Thomas Paine's bold talk of the rights of man. Modern industrial society slowly germinating in the shadow of medievalism, burst the bonds of feudalism. As the new era emerged, unevenly in turmoil and bloodshed, but with the promise of a limitless future, it freed the scientist to cut a path before the world-conquering capitalist. The serfs turned men were herded into the new factories, the miseries of industrial exploitation tarnished the bright slogan of Liberty Equality Fraternity but science was let loose to probe all mysteries and a new generation of thinkers arose to denounce all exploitations.

And so, three decades after the French Revolution had lit up the way for the nineteenth century an English doctor James Blundell, returned to the field which had remained untouched for so long. He was guided by compassion and the new spirit that rejected the unknowable. For years he had watched women die in childbirth from hemorrhage. He rebelled at the fate which destroyed so many mothers in the very act of giving life. If it was from loss of blood that they died, he reasoned, why not defeat the hemorrhage by mechanical means? Why not give back to the arterial system Harvey had already discovered an amount of blood equal to the amount lost during confinement? He pondered the problem and finally created a syringe with which he transferred blood from a healthy individual to a hemorrhaging mother. Like other medical men, he knew nothing about blood itself, but his syringe worked. Some of the mothers died for reasons he couldn't fathom, but some of them were saved. And those who were saved brought blood transfusions back into the field of serious medicine.

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How could blood be prevented from coagulating while being transfused? The Frenchman Landois studied and experimented and finally came up with the startling discovery something in one bloodstream could agglutinate and dissolve the cells of another bloodstream. But what? Though he was on the right track he missed the full truth.

Then came another Englishman, Dr Braxton Hicks, working to defeat coagulation and finally coming close by adding sodium phosphate to blood to preserve it. It was close, but not close enough.

Then came the "black period." While medical men were still ignorant of the blood's strange secrets, transfusions became a craze. They were given for boils and tuberculosis and everything in between, with the cure usually more devastating than the original disease. In despair doctors sought a substitute for the life-giving discovery which led them on and in the end always baffled them for blood they substituted salt solutions, *which mimicked the blood until the body produced its own.* Now there were no complications. Hemorrhages were relieved and post-operative shock was lightened. For fifty years blood transfusions were used only rarely replaced almost entirely by transfusions of salt solutions.

That might have been the end, but science and technique and the widening concern for human life refused to be stilled. Again there were men who rejected the unknowable, who kept studying, searching, experimenting, until at last the secrets were secrets no longer

In 1902 the Viennese bacteriologist, Dr Karl Landsteiner emerged from his laboratory with the first answer He had peered into the depths of human blood. He had found that like the oceans it also had its "flora and fauna." It was, in fact, as if the timeless river running through the veins of men had three tributaries, all flowing from the mother river but each with its own special flora and fauna. In his test tubes Landsteiner separated them, and then brought them together And when he brought them together he saw with startled eyes how one seemed to turn upon the other to stir up a strange tempest, as if all the living things of the ocean were suddenly engaged in fearful combat.

His discovery put the crown of success on Landois's failure. There were certain protein substances, he showed, which typed blood in three categories, depending on the manner in which they were present. He called

the proteins isoagglutinins, and announced there were two such separate, distinct and hostile isoagglutinins. Individuals with one of the proteins in their blood were type *A*. Those with the second were type *B*. Those with a combination of both proteins were type *AB*. The cells of one type destroyed the cells of the other two: to mix them was to invite disaster and death. Only when a patient was transfused with blood from an individual with his own blood grouping could the transfusion be successful. Now the failures of three centuries were explained! The basis was laid for the saving of untold lives.

When Decastello and Sturli in Italy, following in Landsteiner's footsteps, announced the discovery of a *fourth* tributary, a blood type with none of Landsteiner's proteins in it, the incompatibilities of the blood were finally defeated. The fourth type *O*, or universal type, could be transfused safely to individuals of all types.

Henceforth no one would need to die because of transfused blood of a different type. And yet victory was still incomplete. The mother river remained perverse. It could flow through human veins from generation to generation, from Neanderthal man to the pilot hurtling through the skies, renewing itself, mortal in the body of individual man, immortal in the bodies of the race. But exposed to air and light it was no longer a flowing river. It became like a stream cut off from its source. It thickened. It grew sluggish like mud and water. It coagulated.

Now the risks of transfusing were almost gone, yet the act of transfusion itself remained a problem. In the very act of transfusion, blood often coagulated, the flow stopped, the patient died. And again the experiments started, the work in the laboratories went on unheralded, till at last still another answer was found, this time in America.

In 1915 the mother river was kept flowing for the first time outside the body's arterial system. Dr. Richard Lewisohn in New York and Professor L. Agote in Buenos Aires, working separately, added sodium citrate to some test tubes of blood and reported that the sodium kept it fluid longer than it had ever remained fluid by itself.

From Lewisohn and Agote the surgeons took over, perfecting the tools of transfusion and devising simpler methods. A decade later the Russians, with their own special approach to tradition and pioneering, took over

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In 1901 the Viennese bacteriologist, Dr Karl Landsteiner emerged from his laboratory with the first answer He had peered into the depths of human blood. He had found that like the oceans it also had its "flora and fauna." It was, in fact, as if the timeless river running through the veins of men had three tributaries, all flowing from the mother river but each with its own special flora and fauna. In his test tubes Landsteiner separated them, and then brought them together And when he brought them together he saw with startled eyes how one seemed to turn upon the other to stir up a strange tempest, as if all the living things of the ocean were suddenly engaged in fearful combat.

His discovery put the crown of success on Landois's failure. There were certain protein substances, he showed, which typed blood in three categories, depending on the manner in which they were present. He called

practical matters as containers, refrigerators, needles, syringes, antiseptics, station wagons, personnel.

Others would come after him. The mother river itself would soon be broken down into serum and plasma, and yield still further secrets. But in the story without end he would be counted as among the first to offer his life for every life he salvaged from the terror engulfing Spain and the world.

26

On December 6, at six o'clock in the morning, Bethune returned to Madrid with a station wagon loaded with medical instruments and supplies. With him were Sorensen and his latest recruit, Hazen Sise, a young Canadian who had run into Bethune in London and had volunteered to serve with the unit.

In Madrid there was open jubilation. The fascists had thrown the most powerful attacks of the war against it from the south, but had been stopped. The city flexed its muscles like a young giant who has suddenly been faced with a staggering test of strength and emerged a little dazzled by his unsuspected stamina. Now the military command could pass from exhortation to a calm appraisal of the city's clear ability to hold out. It would be a long time till Franco's officers lunched in Madrid.

The Socorro Rojo had not been idle. In preparation for one of the most novel medical projects in military history the Spanish authorities had selected special quarters for the blood transfusion unit. Within a few days Bethune, Sorensen and Sise moved into a palatial eleven-room apartment formerly occupied by the German Embassy's legal counsel. It was situated on Principe de Vergara, a wide boulevard lined with trees in one of Madrid's wealthiest residential sections. "Here," a Socorro official said wryly "you will not be disturbed by the bombs. Franco is careful with the property of the rich."

Three of the rooms were to be used by the Canadians as living quarters. The rest were to be used as laboratories, refrigerator rooms for storaging

in turn, showing eventually that citrated blood could be stored in refrigeration for six weeks and still be used successfully

By 1936 the Russians had established the world's most advanced system of blood banks. And by 1936 the first shots of the second world war had already been fired in Manchuria, Ethiopia had been swallowed up by fascism and Spain was bleeding under the invaders' bombs.

The testing time had come — for those who had followed the mother river to its source, for those who had harnessed it to feed life for those who would shortly cry out themselves under bombs like those wracking Spain.

What now for the long, twisting, agonized story built on the ruins and hopes of so many men, over so many centuries, in so many lands? Now for those still filled with the reverence for life, the story moved to Spain, to Dr Duran Jorda of Barcelona, and to Dr Norman Bethune of Gravenhurst, London, Vienna, Berlin Detroit, Saranac Lake, Montreal and Madrid.

In Barcelona, Dr Jorda[1] had set up a blood bank using the latest findings of the Russians and some of his own. He had developed a highly technical system of pooling, bottling and transfusing blood. Dr Jorda's blood-bank clinic was to achieve glory during the days when Catalonia itself became a fighting front, but at the time, in Madrid, where the fighting was fierce and decisive, there were no mobile blood banks.

This was where Bethune stepped in. Perhaps the situation called for a man who was poet as well as doctor soldier as well as student, painter as well as healer of the body dreamer as well as scientist — a man, above all, filled with a vast affection for people a vast hate for the disturbers of life and a vast belief in the future he and others could fashion Here, it would some day be recorded, Norman Bethune took up where the explorers of the mother river had left off.

What would they have said of him — the Roman doctor Landois, Denis, Blundell, Landsteiner?

In his London hotel room, tracing the story to which they had given their minds and lives, he gave it no thought. He was too busy with such

[1] Dr. Jorda later became chief of the Blood Transfusion Service of the Spanish Republican Army

refrigeration room with the waiting bottles, the transfusion room with its three beds for donors. Everything was in order but he felt a sudden stab of uncertainty. Suppose the morning came and only a few stragglers turned up? It was easy to buy equipment, to make grandiose plans, to assume titles—it would all be worthless without blood, and that was something you couldn't buy in Paris and London. Was there a home in Madrid without hunger without its casualties, without its men at the front? With their own bodies the men and women of Madrid had fashioned an impenetrable shield about their city. What more could one ask of them? The women who built fortifications and lived on beans the men who worked all day and slept "with one eye open" at night—had they not been bled and starved themselves? It occurred to him he might have overlooked the chief element in the project: the *human element* the imponderables that rose up to confront every surgeon as the body lay revealed under the knife. And how many imponderables there were here, he reflected, looking out of the window at the darkened street. One air raid tonight, and in the morning all Madrid would be haggard and sleepless. Keep a man sleepless long enough, and his brain would become as soppy as a sponge.

He awakened Sise in a fit of restlessness. "I was just wondering about tomorrow" he said. "Do you think they'll show up? It's all fine on paper but without enough donors—

Sise yawned sleepily in the dark. "That Socorro chap seemed to think there'd be no problem."

"Yes. Still. Bethune prowled about the room. "Yes he should know. Well, good night, we'll need plenty of sleep by morning. We'll know soon enough."

It seemed to him he had hardly gone to bed before someone was calling him.

"Dr Bethune commandante. " Dr Lopez, one of the Spanish doctors, beckoned him onto the terrace off the study pointing silently to the spectacle below

Over two thousand people filled the street, with more arriving every minute. They stood close together from sidewalk to sidewalk, eyes fixed

This is pseudonym.

of blood, reception and transfusion rooms. Two young Spanish doctors were assigned to Bethune as assistants, along with two laboratory technicians, three nurses, a cook and housekeeper, a clerk and a doorman.

In a state of mounting excitement the laboratory was set up, two refrigeration units assembled and the transfusion equipment moved in. The unit was to function along a 400-mile front. Bethune and the two Spanish doctors were each to be in charge of a separate sector of the front. As comandante of the unit, with the rank of colonel of the Republican Army Bethune was directly responsible to the Army for the entire project. Sorensen was named liaison officer and Sise was to be in charge of transportation. From the moment the service began it would never stop—part of the unit would be on duty every moment of the day or night, ready to rush blood to any section of the front the moment a signal was received from military headquarters that fighting was in progress.

Once everything had been installed on Principe de Vergara, small refrigeration units were distributed to the hospitals and field stations on the three sectors for the storing of blood in between emergencies.

Now everything was ready Returning from a last check-up of arrangements at the front, Bethune called the members of the unit and Socorro Rojo officials into session.

"Our glorified milk delivery system," he reported, "has been set up—to the last detail. We're ready to start delivering There's only one thing we need. The milk. Without that we might all just as well go home. He turned inquiringly to a Socorro representative.

The Spaniard nodded confidently "We shall see that you have all the blood donors you need."

"The need for donors will continue as long as the unit is operated. To have a sufficient store of blood on hand to meet all emergencies, donors will have to come forward every day"

The Spaniard looked baffled, as if he failed to understand why the matter had to be discussed. "You shall have the donors," he said simply

For three days an appeal went out to the people of Madrid through press and radio. Blood was needed for the men at the front!

On the third night Bethune sat listening to the radio announcement then wandered through the laboratory with its gleaming equipment, the

refrigeration room with the waiting bottles, the transfusion room with its three beds for donors. Everything was in order but he felt a sudden stab of uncertainty. Suppose the morning came and only a few stragglers turned up? It was easy to buy equipment, to make grandiose plans, to assume roles — it would all be worthless without blood, and that was something you couldn't buy in Paris and London. Was there a home in Madrid without hunger without its casualties, without its men at the front? With their own bodies the men and women of Madrid had fashioned an impenetrable shield about their city. What more could one ask of them? The women who built fortifications and lived on beans the men who worked all day and slept "with one eye open" at night — had they not been bled and starved themselves? It occurred to him he might have overlooked the chief element in the project: the *human element* the imponderables that rose up to confront every surgeon as the body lay revealed under the knife. And how many imponderables there were here, he reflected, looking out of the window at the darkened street. One air raid tonight, and in the morning all Madrid would be haggard and sleepless. Keep a man sleepless long enough, and his brain would become as soppy as a sponge.

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"Yes. Still. " Bethune prowled about the room. "Yes he should know. Well, good night, we'll need plenty of sleep by morning. We'll know soon enough."

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"Dr Bethune [illegible] comandante. " Dr. Lopez, one of the Spanish doctors, beckoned him onto the terrace off the study pointing silently to the spectacle below

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on the Institute. There were men and women, young and old, gaunt and portly, civilians and soldiers, poorly clad workers and well-dressed housewives. They were waiting patiently silently, without laughter

As the two doctors stood on the balcony the people in the street nudged one another expectantly Bethune gazed at the upturned faces for a moment then went inside. His face betrayed nothing of the turmoil he felt, he issued quick orders, the doors were opened, and the first donors filed in.

All morning and far into the afternoon they worked, registering, taking malaria and syphilis tests, checking blood counts, filling the liter bottles —and still the donors came. A militia detachment had to be called out to keep traffic moving outside. From the Socorro Rojo extra clerks were sent to help. And finally there were no more bottles and even the kitchen refrigerator had been emptied for makeshift storage space.

From the balcony Dr Lopez announced that no more donors could be taken till the next day But the men and women who had waited for hours *cried out in protest and disappointment.*

"*Mañana?*"

"*Hombre! Porque?*"

Shouting above the din, Lopez tried to explain that there were no more containers for their blood, and no more space to store it. But the protests continued.

"*Hombre camarada por favor ahora!* You must take the blood now! Our men *need* it now!"

With a harassed look Lopez turned to Bethune. "What shall we do? They will not leave!"

Bethune leaned over the balcony railing to look at the shouting crowd below Turning back to the Spaniard, his face lit up with pride, he said: "If they won't leave, then we'll stay open. We'll admit them all. Let the clerks register them take their names and addresses. We'll make as many blood tests as we can today and explain to all of them that we shall be calling them back within a few days. "

Ten days later on December 23, *the first transfusions from stored blood* delivered by the mobile Spanish-Canadian blood unit were given in University City

The following day Bethune sent a cable to the Spanish Aid Committee in Toronto.

> Institute launched. Magnificent response from people of Madrid. First test transfusions at front carried out last night with complete success. Greetings from all.

27

THE WAR WAS LIKE A FLOOD blocked at one point, it broke out at another. In November it had swirled round Madrid, now in the new year it threatened to engulf the south.

Franco had thrown everything into the assault against Madrid—and failed. A stalemate now would have gained the Loyalists time to strengthen their defenses—and the fascists, a moral defeat. To surround Loyalist Spain, to cut it off from the rest of the world, to reassure Rome and Berlin—that was now viewed at Burgos as a prime necessity. By the end of January massed German, Italian, and Moorish troops, deployed in the south after the stalemate at Madrid, began heavy attacks northward. Their strategic aim was occupation of the coast and a flanking movement against the Loyalists. Standing in their way were Málaga, Motril, Almería, a string of sun-baked towns, and the poorly equipped troops of the Republic. If successful, the drive could sweep along the coast to Cartagena, Murcia, Valencia and perhaps, eventually even into Catalonia. For Franco it would be a resounding victory: for the Republic, disaster.

At the Blood Institute on Príncipe de Vergara Bethune tapped veins, kept up his relays to the front, followed the government communiqués, and studied the map of Spain. It was clear that a new phase of the war was opening, and therefore a new phase in the work of the Institute. In November and December Franco had made Madrid the hub of the war and the Republic's defensive effort had pushed out of the city like the spokes of a wheel. One of these spokes had been the Institute. Now with the blood transfusion system working efficiently on fronts covering 1000 kilometers, and with the new fascist attack gaining momentum in the

South, Bethune drafted plans to extend the work of the Institute. It was a war of blood and iron, and blood had to follow the fighting

He laid his plans before the Socorro Rojo and his colleagues at the end of January The decisive thing now, he contended, was to extend operations to the areas and fronts directly in the path of the latest fascist attack. His proposals received immediate endorsement. On February 4, accompanied by Sise, he left the Institute in charge of Dr Lopez and Sorensen and set out for Málaga. They traveled in a new truck fitted out with special refrigerators, stored blood, and transfusion equipment. Their last news on the situation in the south came from an English correspondent who had just arrived from Málaga. "You're going to have your work cut out for you," he said. "It was the hottest spot in all Spain when I got out a few days ago, and I don't mean the weather"

As they drove along the highway to the coast Bethune made notes on the work ahead of them. "On the way down from Valencia we'll make preliminary inquiries at all the hospitals. We'll find out their blood needs, plan deliveries and establish the number of casualty stations they can service. That means we'll have to get more drivers, more doctors, more technicians and blood donors in each area." It would also mean that the Institute, from the great arc around Madrid, would be servicing the fronts all the way south to within a few miles of Gibraltar When they arrived at Valencia on February 6, the news at Socorro Rojo headquarters was somber The situation in the south, an official said, was "fluid." It was suggested that the trip down the coast now would be too risky There was no telling how the fighting might go, and it might be more prudent to establish the subsidiary blood bank in Valencia itself Bethune agreed that it might be more "prudent," but they left the next morning nevertheless, joined by a young Englishman, Thomas Worsley who was to be a relief driver

For three days, in an atmosphere of increasing uncertainty they followed the coastline, feeling the tension growing in every town along their route. On February 10 they reached Almería and heard the worst Málaga had fallen. "You can go no further" a spokesman at the Governor's office said here for you to go. We don't know where our troops are

"But wounded," Bethune said. "There will be plenty of wounded."

"Chaos! Where will you find the wounded? The fascists are in Málaga and advancing north — that's all we know. Perhaps you can do something here?"

"Our instructions are to take blood and transfusion equipment to the farthest front in the south," Bethune replied tersely.

They drove through the town silently viewing the small port below. An old destroyer ready for scrapping lay in port. From a villa overlooking the sea there fluttered a Union Jack.

Under the palm trees gracing the port Sise stopped the lorry. "Well," he inquired, "what do we do now?"

"Exactly what we set out to do." Bethune pointed to a marker at the side of the road: 169 kilometers. The markers ran northward from Málaga. That meant they were one hundred and sixty-nine kilometers from the fascists — from the front.

28

Bethune himself recorded the events that took place after they left Almería:

> We spent one hour in Almería, long enough to look for a meal that was unobtainable. The little seaport had been bombed from the air and blockaded from the sea. One could sense the hunger in the streets. A street urchin led us to a little bar, but it was completely filled with militiamen, all of them eating the same steaming, soupy mixture. Ragged youngsters roved among the tables, pouncing on the leavings. At a hotel in the center of the town the proprietor apologetically served the one-course, standard fare: beans. When we started out again the streets were filling with people. The news about Málaga was spreading.
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> Men stood about in groups, debating: was it wise to stay? Was it possible the fascists could come this far?
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sandals on stone, the hiss of labored breathing, the moaning that burst from cracked lips and travelled along the wavering line till it expired in the distance.

They were of all ages, but their faces were drawn with the same weariness. They flowed past our truck without expression a young girl, hardly sixteen, straddling a donkey her head drooping over an infant at her breast; a grandmother her old face half-hidden in her dark shawl, dragging along between two men a patriarch, shrivelled down to skin and bone, his bare feet dripping blood on the road a young man with a pile of bedding strapped to his shoulders, the leather thongs cutting into his flesh with every step a woman holding her stomach, her eyes wide and fearful — a silent, haggard, tortured flood of men and animals, the animals bellowing in complaint like humans, the humans as uncomplaining as animals.

Sue stopped the car I got out and stood in the center of the road. Where were they from? Where were they going? What had happened? They looked at me slowly sideways. They had no strength to go on, but feared to linger The fascists were behind them, they said. Málaga? Yes, they were from Málaga, and Málaga had fallen. Málaga! *Nada más!* Where were they going? Wherever the road led. There was no other road. The fascists had come to Málaga, the guns had roared, the houses had crumbled, the city had been gored and everyone able to walk had taken to the roads. Turn about, they advised; there was nothing left   nothing behind them but more people on the road, and behind them again, the fascists.

I came back to the truck. Hazen had his camera ready I watched grimly while he took pictures from the roadside and the top of the truck. I thought of Málaga a stunning defeat! How had it happened? But it was no use thinking about that now What mattered was that somewhere this side of the captured city Loyalist lines, surely would be reforming. Somewhere there would be new defences, more bitterly contested now Somewhere down the road there would be fighting, rear-guard actions at the very least, wounded, dying, needing the blood we had brought from Madrid.

We drove more quickly now and as the road banked steeply the line

was only one road. From Almería it followed the jagged line of the coast. It circled round steep curves, banked on the right by gray cliffs, overlooking the sea on the left. Behind us Almería was cut off from view below us the Mediterranean tossed its breakers against the rocks.

Ten miles out of Almería my reveries were interrupted by a strange procession. I peered through the windshield wonderingly Peasants? Yes, plodding along with the ever-present donkey Yet as they drew closer they were no longer merely peasants.

Coming towards us we saw a man leading a donkey by a string dragging his feet, his head hanging, a child tied onto his back with a shawl. The donkey was heaped high with a mattress, pots and pans, a pair of boots, blankets, a water jug A boy hung onto the donkey's tail. Behind him came a woman with an infant in her arms, and behind her an old *man hobbling with a stick, dragging another child by the hand.*

The refugees passed the car without seeming to notice it. They plodded along wearily their feet scuffing the hard road, their shoulders drooping as if to pull them forward, their mouths hanging open, their eyes rolling upwards in the unconscious symptom of complete exhaustion.

Further down the road another group was filing round the bend. They were like mourners following a hearse. The men staggered under their wide hats, the women trailed haltingly in their traditional dark cotton cloaks, the children wore only short pants or shifts, their half-naked bodies hot in the sun.

The second group stumbled by us and I felt a jab of pity anger impatience. We drove on, and around every bend there were more refugees. At first they came on in scattered groups, then at more frequent intervals — a hundred yards apart, fifty yards, then following on each others heels a thin line flowing without break along the side of the road, with the hot sun above and the sea below

There were families walking together carrying a few trivial possessions; men and women who seemed to be alone, moving without choice at the pace set by the others children with tired, bewildered faces, passing from hand to hand. They seemed to have sprung from the ground they were like shadows moving from nowhere to nowhere. Between the noise of the sea and the echoing cliffs the only sound they made was the scuffing of

sandals on stone, the hiss of labored breathing, the moaning that burst from cracked lips and travelled along the wavering line till it expired in the distance.

They were of all ages, but their faces were drawn with the same weariness. They flowed past our truck without expression: a young girl, hardly sixteen, straddling a donkey her head drooping over an infant at her breast: a grandmother her old face half-hidden in her dark shawl, dragging along between two men a patriarch, shrivelled down to skin and bone, his bare feet dripping blood on the road a young man with a pile of bedding strapped to his shoulders, the leather thongs cutting into his flesh with every step: a woman holding her stomach, her eyes wide and fearful—a silent, haggard, tortured flood of men and animals, the animals bellowing in complaint like humans, the humans as uncomplaining as animals.

Sise stopped the car I got out and stood in the center of the road. Where were they from? Where were they going? What had happened? They looked at me slowly sideways. They had no strength to go on, but feared to linger The fascists were behind them, they said. Málaga? Yes, they were from Málaga, and Málaga had fallen. Málaga! *Nada más!* Where were they going? Wherever the road led. There was no other road. The fascists had come to Málaga, the guns had roared, the houses had crumbled, the city had been gored and everyone able to walk had taken to the roads. Turn about, they advised; there was nothing left nothing behind them but more people on the road, and behind them again, the fascists.

I came back to the truck. Hazen had his camera ready I watched grimly while he took pictures from the roadside and the top of the truck. I thought of Málaga; a stunning defeat! How had it happened? But it was no use thinking about that now What mattered was that somewhere this side of the captured city Loyalist lines, surely would be reforming. Somewhere there would be new defences, more bitterly contested now Somewhere down the road there would be fighting, rear-guard actions at the very least, wounded, dying, needing the blood we had brought from Madrid.

We drove more quickly now and as the road banked steeply the line

of refugees grew wider Then there was a sharp turn away from the sea, a slow climb, and suddenly we breasted a hill falling away to a long, level plain. Sise rammed his foot on the brake with a surprised grunt. The truck jolted to a stop against a shuddering wall of refugees and animals. They filled the entire road. Women screamed, donkeys reared, faces pressed in upon us, and as quickly as we had reached the hilltop, the wall of refugees reformed to move around the truck.

But it was the scene below that held us speechless.

The plain stretched into the distance as far as the eye could see, and across the plain, where the road should have been, there wriggled twenty miles of human beings, like a giant caterpillar its many limbs raising a cloud of dust, moving slowly ponderously stretching from beyond the horizon, across the arid, flat country and up into the foothills.

I hoisted myself onto the running board, shielding my eyes to look down onto the plain. Nowhere was the road visible. It was blotted out by the refugees, thousands upon thousands of them, pressed together falling against each other, like bees swarming in a hive, and like bees filling the plain with the hum of voices, cries, wailings, the grotesque noises of the animals.

We began to descend slowly Sise sounding his horn without stop. On the running board I tried to wave the refugees aside. They paid no attention to my shouts or the sound of the horn they merely flowed around the car with downcast eyes, bumping against its sides and then spreading across the road behind it again.

If they were from Málaga they had been walking at least five days and five nights. Was it possible? That old woman with the open ulcers on her legs—could she have survived five days and five nights on the open road? Yet here she was, her cloak trailing in the dust, swallowed up now behind the truck. And the children of all ages, most of them bare foot—could they too have survived? Too many children! One quick glance along the road immediately ahead gave one a sickening wrench. *Five squirming miles of people, and among them thousands of children!*

We drove past stragglers, families resting by the roadside, men and women huddled together sleeping on the bare earth through wretched villages emptied by the general retreat alongside bomb-pits and burnt

our peasants hovels. Then the plodding mass changed imperceptibly like a spring suddenly filled with mud. I swore under my breath militiamen! At first there were only a few lost among the refugees, but a mile further they came on in hundreds, then in thousands. Their uniforms were torn, their weapons gone, their faces covered with stubble, their eyes hollow with defeat. What were they doing among the refugees? Political irresponsibles? Deserters? I had no time to wonder for behind the militiamen came lines of cavalry. Horses and riders were spent. Some of the cavalrymen slouched along with their boots slung about their necks, leading their mounts, women or children clinging to the saddle. They were no longer cavalry: they were refugees like the rest, silent, grim, in flight.

The Spanish sun was as merciless as the fascists that day. The heat became a tangible, hated enemy. The road swerved back to the sea, and we heard the sound of the surf on the rocky coast again, rumbling like a distant drum beneath the sounds of the exodus.

Now there were more signs of panic, hurry, disorder. We had to manoeuvre around broken-down carts and abandoned trucks. Dying burros had been pushed onto the beaches below where people lay stretched in exhaustion, their swollen tongues hanging from puckered mouths. More children, more militiamen, more deserted villages. Stopped momentarily by an obstruction on the road, we were engulfed by shouted pleas, hands reaching out towards us, people begging for water, for transport to Almería. I threw my water canteens out of the window and we pushed ahead.

We passed an empty bus with a militiaman at the wheel. As we passed, the militiaman stuck his head out of the bus, waving his hands and shouting, "Petrol. ... " Sise shook his head and cried back, "*Al frente!*" Behind the bus a little girl crouched beside the road, all alone, howling with her thumb in her mouth. Out of the line of refugees I saw a militiaman's hand reach out and hoist her on his back. Beside the militiaman a peasant was carrying a woman over his shoulder like a sack of potatoes.

The coast fell away again and we drove between fields of sugar-cane. The heads of the sugar-cane swayed gently in the breeze. Green leaves

of refugees grew wider Then there was a sharp turn away from the sea, a slow climb, and suddenly we breasted a hill falling away to a long, level plain. Sise rammed his foot on the brake with a surprised grunt. The truck jolted to a stop against a shuddering wall of refugees and animals. They filled the entire road. Women screamed, donkeys reared, faces pressed in upon us, and as quickly as we had reached the hilltop, the wall of refugees reformed to move around the truck.

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than Spanish to speak my heart to this stranger, to the faces coming out of the tumult and the night, the faces gathering about me, twitching with fear, to the arms reaching out like a wavering, stricken forest, to the voices beseeching me.

"*Camarada* ... *por favor* ... save us," they cried, and I understood their pleas without understanding the words.

"Take our women and children ... the fascists will be upon us soon."

"Have pity, *camarada*, save us, *for the love of God*."

"Let us go with you in your vehicle, we can walk no further."

"*Camarada, los niños* — the children."

I hoisted myself onto the running board. They surrounded me, plucking at my clothes. The bitter thought burned in my mind: Where are they tonight, the appointed *ministers to the Christian God, bearers on earth of His love and salvation* — where are they, that they hear nothing of those who cry out to their Lord? Into what dark cave has the love of man been hounded? Where the mercy and the conscience of a world going its sickly way?

Words — bah! Everywhere a deluge of fat words, and under the deluge, here on the Málaga road, the lost and the damned. If only I had a thousand pairs of hands, and in each hand a thousand deadly guns, and for each gun a thousand bullets, and each bullet marked for an unhanged child-killer — then I would know how to speak! From every gun in every hand I would speak death for the corrupted breed, and with a voice like Gabriel's trumpet I would roar at the ears of the slumbering world, *drowning the fools and liars still* spreading their clamorous deceit abroad. With a voice like Gabriel's trumpet I would awaken the indifferent millions beyond Spain's invaded borders: "Your hands are polluted with innocent blood, all you who sleep peacefully tonight! Your cities are Sodom and Gomorrah if you care nothing for the shame on Málaga road tonight! Your children will wander in their own wilderness of death and terror, all you who hear the anguish of Spain and stay silent tonight!"

I bent *down to peer* at Sise across the shivering body of the child. "They're right," I said. "It's senseless now to go further. There's only one thing we can do — get as many of these people to Almería as we can

drifted across the road and under the bare feet. Beside another stalled bus a group of militiamen waved at us to turn back. *Through the window* we shouted the refrain, "*Al frente!*"

We came out on the coastline again just as the sun mercifully began to set. The sky glowed, long tongues of flame trembled in the Mediterranean, then it was suddenly dark. We sensed the quickened pace of the refugees about us. Sise switched on the headlights. Immediately we heard angry cries "*Luz* — lights!" In the besieged cities children were growing up, unaware that man had long ago conquered the darkness, and here too, on the pleasant coast that had once drawn ecstatic tourists, lights were a menace and only the black night held safety

Without headlights it was almost impossible to drive. We sounded the horn, we shouted, but it was no good. In an hour we moved a short distance, then we moved no further We sat in the lorry cabin, thinking, then a group of militiamen came up, harassed, but with some semblance of discipline. They asked for our documents, examined them carefully saluted, and reported the situation behind them. The fascists were coming eastwards swiftly they said. The next town was Motril, and it was already in enemy hands or would be soon. There was no front no stand was being made anywhere this side of Almería. It was more than a rout — it was a collapse, with the southern coastal region falling like a ripe plum into the hands of Franco's foreign troops.

The door of the lorry flew open. In the darkness a man held it with his shoulder his wide eyes fixed on me, a five-year-old child in his arms. He held out the child, emaciated, shivering with fever and began to talk quickly the words spilling from his mouth, hoarsely at first, then his voice rising till it was like the wail of a desolate flamenco. I needed no translation; the words were universal they would have been understood in any language "*Mi chico — muy malo.* My child is very ill. He will die before I carry him to Almería. I will stay behind. I ask only for him. Take him — leave him wherever there is a hospital. Tell them that I will follow Tell them this one is Juan Blas and that I will come soon to find him."

I took the child and laid him gently on the seat. The Spaniard seized my hand convulsively and made the sign of the cross over me. I needed more

Back and forth I went, ordering, trying to soothe the women, selecting the youngest, grimly turning adults away carrying the children in my arms. And as I filled the truck the anguished voices pursued me. I heard men and women calling for families lost somewhere in the night. Mothers whose children were in the truck stood nearby and whispered encouragement. Men who watched silently their hopes sinking as the truck filled up, went off into the fields to throw themselves on the ground. "Who am I to decide their fate?" I asked myself.

"How many more?" I called to Sise.

"Two more — with a tight squeeze."

I felt a touch on my arm. I looked over my shoulder and saw an old face, a stooped back, tears, and the unspoken inquiry glimmering through the tears. I looked at the old man, waiting for my wind to come back, then slowly shook my head. "Your face will haunt my dreams, friend," I thought, but I put aside the hand at my sleeve — an old man's hand at my sleeve like the hand of a child.

Two more to go — and there was a sudden silence as the truth dawned on the waiting refugees with a blinding vision this was the silence that filled the prison courtyard as the hangman fitted the noose about his victim's neck and the spectators braced themselves for the last unbelievable act. But here there were no spectators. Here all were victims, all felt the noose tightening about their own necks.

I passed a woman of fifty old before her time, but still too young for death. She could hardly stand erect. Her legs were gigantic, the varicose veins visible in the darkness, knotted like swollen thongs of torture, blood seeping into the cuffs of her linen sandals. I came back to her What if this were my own mother — how would I decide? I stood before her touching her bony shoulder My own mother? But if not my own, then some one else's — a mother of Spain, and therefore my own. I steadied her swaying shoulders, but she looked calmly away as if she had nothing to ask.

I took the last child for the last precious space — plucking it from the arms of a woman who held it, screaming, then screaming gave it up as if it was having once more, in blood and pain, from her very womb. I carried the child, a little girl, through the silent crowd to the truck.

manage. We'll unload everything in the back to make room, and send the stuff along with the first ambulance that comes by We'll take children only "

We turned the truck about on the narrow road, unloaded the equipment and stores of blood, and when we were finished I opened the back doors of the van. A thrill of excitement ran through the refugees, all of them waiting but none daring to hope. I inspected the van, calculated the number of people it would accommodate, and jumped to the ground. "*Solamente niños!*" I announced, but the words were lost in the hubbub and I was thrown back by the sudden surge of bodies. The doors to safety had opened, and to every refugee it seemed rescue was a matter of now or never As I fell back under their frantic charge, I flung my arms across the open doors. "Children only!" I shouted furiously holding them off. "*Niños!* Children only!" Sise came plunging to my side to help.

"How will we manage it?" Sise panted, pushing against the milling crowd. "They'll go mad — those left behind!"

"No adults," I felt my voice harsh against the pleading and weeping. "There's nothing we can do except fill up with children. I'll pass them to you — let nobody else in even if you have to do it by force."

Slowly methodically I fought my way into the hysterical ranks of the refugees, shouting, "*Niños! — Solamente niños!*" It seemed gruesome now to decide who would go and who would stay more terrible even than to be a helpless onlooker "You," I called, pointing over the heads at a woman holding a baby about her neck. "*We'll take your child!*" Willing hands pushed her towards me. Soon I reached her standing close in the press of bodies. "We'll take the child," I repeated, but the mother merely looked up at me with great, dark, sunken eyes and held the child tighter Perhaps she didn't understand? I put out my arms, but still she made no move, looking up at me without expression, and I saw that the child was too young to be separated from the mother I felt a stab of uncertainty It was easy to say "Children only" but this woman's dark, sunken eyes replied "Take my child alone, and you kill us both." I put my arms about her opened a way for her to the truck and into Hazen's waiting arms. "Both of them," I said and pushed into the crowd again.

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"In Spain" he declared in one of his speeches, "fascism has attacked 24,000,000 people, with the United States, Britain and France embargoing the Loyalists. Now in China, the attack has spread against nearly one quarter of the total population of the earth. If the same treacherous policy of blockading the victims and making arrangements with the aggressors is continued, we may well wonder whether any man, woman or child is safe anywhere in the world."

He watched hopefully for hints of a change in the policies of the Western powers, but none came. In 1931 Japan had invaded Manchuria. There had been some verbal rumpus on the part of the Western powers and paralysis in the Chiang Kai-shek government. Now the Japanese had launched their open attacks at Peiping in July 1937 and as in Spain, the Japanese anchor of the anticomintern bloc raised a loud hue and cry about suppressing "communism" in Asia.

Bethune read the news from China as he had once followed the communiqués from Madrid. He sounded a new note of urgency in his speeches. Feelings of exasperation and impatience filled his letters to friends. He could sense, in the reactions of his audience, a greater receptivity to the things he had to say There was a growing feeling of uneasiness about Axis moves among wide sections of the public. But it seemed to him that the menace hanging over the world was growing much more quickly than the awareness of the people.

When he read of Japanese bombings of Chinese cities his mind went back to Madrid, to Almería to the sound of the bombs, the cries of the wounded the sight of the dead. Canada and the United States had to be awakened! But they were being fed on "supine editorials, the soothing words of political spokesmen, the opiates of Hollywood, the skillfully planted propaganda of powerful business lobbies."

To a friend in Montreal who reminded him in a nostalgic note of pleasant times they had shared before he had gone to Spain, he replied "No, for me they can't return No one knows better than I the lure of pleasures, excitements, people Yes, I know my own vulnerability!

But those days are gone for me. I have steeled myself against them. The future looks lonely and dangerous.

To a medical colleague he wrote:

> Today I picked up some Canadian papers between trains. Buried somewhere in the back pages I found an item reporting a demonstration at the Vancouver waterfront against the loading of scrap iron for Japan. Splendid, any decent person would think. But was some cabinet minister there to praise them, to assure them that Canadian materials would not go to make armaments to destroy Chinese lives? No. Only the police were there, to pounce upon and snatch the demonstrators. Idiocy! But what bloody and malevolent idiocy! And I keep on *talking*.

In the face of the "idiocy" he came to a decision. On a train somewhere in the Midwest he wrote a letter to a member of the Spanish Aid Committee in Toronto. He had now spent half a year, he pointed out, lecturing on behalf of Loyalist Spain. He had undertaken the job because he had been convinced of its necessity. But the military situation in Spain had become worse since his return home, and elsewhere the political situation was deteriorating as war spread over the Orient. In these circumstances, when military considerations grew more important in the struggle to defeat reaction, and when he had, in any event, covered most of North America in his tour, he felt that his usefulness once again lay in more direct participation.

He now had several meetings to address in Canada as the windup of his tour. He spoke to a McGill students' group and then at a rally in Toronto. A week later, at a meeting in Saskatoon, someone in the audience shouted a question at him: "Is it true that you're a Communist?" He replied: "Yes, I am a Communist."

The press carried his avowal throughout the country. Some quarters received the news with surprise; others viewed it as a gesture; but to his closest friends his action had an air of inevitability about it.

When someone, after his Saskatoon meeting, suggested that his Communist affiliation might tend to diminish the effectiveness of his work for Spain, he reacted vehemently:

from city to city warning that failure to uphold Loyalist Spain would invite further catastrophes, history overtook his direst predictions. The anticomintern struck again—this time in China.

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PART FOUR

The Enemy—Those Who Make the Wounds

To the east the valley opened towards still another mountain range with its peaks hidden in the clouds.

Soon they reached the village — a collection of mud huts housing two hundred peasants beside a clear-running, green stream. Though accustomed by now to the sudden departures and arrivals of the foreigner with the beard and white hair the villagers came out into the dusty street to stand by with their grave and dignified air as Bethune and Tung passed. The hospital was the Buddhist Temple on a rocky elevation just above the village, surrounded by willow and pine trees. As they rode up Bethune could hear the doleful drone of a priest's voice intoning the prayer "Oh, Buddha, I have put my trust in thee." The priests had remained on when the Temple was turned into a hospital — "pious and obese," Bethune described them later in his diary "like the satirical figures of Anatole France's priests in *Penguin Island*."

> They always give me a feeling of distaste, with their fat faces, their unctuous manners, and their unnecessary servility
>
> Three times a day they chanted their prayers, accompanied by bells and gongs. I sniffed the air knowing from the sweet and pungent smell smothering the scent of flowers, that they were burning joss sticks. As I dismounted soldiers' voices were suddenly raised in a patriotic song:
>
> | | |
> |---|---|
> | *Meyo Chan* | We have no rifles, |
> | *Meyo P'ao.* | We have no guns. |
> | *Der keng gei* | The enemy gives us |
> | *Wo men tsao* | All we have. |
>
> The priests chanted of their trust in Buddha, the soldiers sang of their trust in other gods. I went into the courtyard, delighted as always to see how richly filled it was with flowers in bloom. Huge pink water-lilies, like fat, slightly breathless dowagers after a solid lunch, hung their heavy heads, as big as footballs, over the edges of black earthenware tubs. Geraniums, roses, blue bells and flox surrounded the ornately painted doorways. Small squares of gauze, washed and hung out to dry were spread out on the low orange trees like crumpled magnolia blossoms. Some convalescing soldiers sat on the temple steps, their bandaged arms and legs under

an ordinary physical examination. There was, of course, no history of angina of effort. The Insurance Company were not disposed to be critical. It appeared that they understood, and covered, such risks.

Medical science progresses—former errors may be corrected. Glycosuria is a good illustration of how much greater is our responsibility when the case under observation is one presenting no symptoms. It is a clearly defined indication for a sugar tolerance to-day—one of the most satisfactory investigations which we have—but formerly there were some individuals the worse as the result of an examination.

Nobody knows what the outcome of mass radiology may be. It would seem excellent for the services, both on entry and perhaps later because there is little scope for individual care of the health. For the general public it is a responsibility which should make us pause. Many tubercular lesions in the lungs have healed during a comparatively normal existence. In the presence of symptoms, be they slight, radiology of the lungs is wise. In the absence of symptoms, there is a risk that some lives will be disturbed without obtaining the cheerful, courageous co-operation of the patient which is one of the chief essentials in arresting the disease. That is the point to remember The very man who was taking some care to keep fit, or the man who was doing well because he led a normal life, unconscious about his health, may make a poor show if latent disease is revealed, because, in the nature of things, he will expect to receive a cure, which at present, we cannot offer

Quoting from memory I believe there is an aphorism of Lord Horder's—"The art of medicine is diagnosis, and diagnosis and again diagnosis." There is no question that this is the first duty of the physician, or any other medical man, called in to investigate some symptoms. Lord Fisher in his autobiography says that he learned the valuable maxim "Don t prescribe until you are called in," from another medical member of the House of Lords. We are tending more and more to undertake the responsibility of making a diagnosis when we are not called in. Do we always realise what a great responsibility this may be? When Thomas Hood, the poet, was wasting away from phthisis and cracked his famous joke about the poultices "with so much mustard *for*

so little meat," he might have felt that life was an individual problem and that almost anything in mass form was incompatible with human welfare.

A poet might say that every family doctor knows that there is a spiritual side to medicine (not quite the same as psychological) as well as the physical. Every hospital officer who has worked successfully with a ward sister through the critical stages of a desperate illness of some patient, knows that there is a team spirit of three—doctor nurse, and patient. It may be a far cry from a life hanging by a slender thread which did not map to an individual picked out of the herd because his lung has cast a shadow but he is an individual, with all his possible variations, and there is a spiritual side to him. It will be necessary on many occasions, to gain the understanding of a wife, or mother, at the first possible moment, lest there be the charge that he was all right until the examination came along

It is all in the right direction that the profession should be encouraged to consider health and not solely disease but I do not think this is really new for family doctors in my time. They have great experience of how the variable human being may react to a diagnosis. The Responsibilities of Mass Radiology would make a good subject for discussion at a clinical society of general practitioners.

This idea of a routine medical examination is very interesting I may be wrong in doubting whether it would promote good health, but at least one may say that we do not have it for ourselves. Some years ago there was a picture in *Punch* headed "When life is worth living." The moment in question was that when the dentist says, at the annual inspection of the mouth, that there is no tooth which needs attention. We encourage the public to have this regular dental inspection, but a medical overhaul is a more complex undertaking Examination of those engaged in a dangerous trade, or those exposed to some special risk, is another matter. Perhaps a doctor who was practising before the days when phthisis could be diagnosed by radiology must modify his opinions in accordance with this progress, but it is reasonable to wonder if a regular routine overhaul would be good for the average individual.

Examination should be encouraged with some event in view

although, before giving advice to those contemplating matrimony, it is well to know if the interested parties will abide by it. Two young people were brought to Sir William Osler by the prospective parents for him to decide in a question of phthisis. When the young people were alone with the doctor and before he gave his opinion, they told him that they knew what his advice would be, so they had got married the day before.

As a matter of fact, at any rate in these days, if there is doubt, we *should* remember that a semi-invalid husband may be compatible with a happy marriage, but the invalid wife is likely to bring failure.

I am all in favour of the family doctor taking his opportunities of giving good advice about habits. He was a sound fellow in Sam Weller's story who said 'four crumpets every night will do your business in six months', although perhaps he should have realised, as the conversation progressed, that it was a case for the psychiatrist. It was indiscreet to tell a man how many crumpets would kill him at one sitting. Mr Pickwick was justified in being startled by the tragic end of what appeared on the face of it to be a simple story.

What I have seen of inspection of school children has been good, but it can be less of an event for the average child if it comes through the family doctor or the Children's Hospital. As I have already emphasised, I think the examining doctor should be one who deals with disease.

There are many things, more important than a physical examination, which a good doctor could bring to his patients to improve their health. He could go round the class-rooms at school to observe those who are working under mental strain. He could join in the games, or could umpire, watching the development of muscular physique and of character—both are essential for health, and particularly the latter. The tortoise may need a little prodding and the hare a little holding back. It will bring health to one boy to be a centre-forward and to another to be a naturalist. And so it is later in life. If the artisan is doing heavy work, there is no objection to his watching professional football on Saturday. It is quite an attractive amusement. It is better than going to race meetings or the dogs. But the office worker in his spare time,

should be taking exercise in the fresh air although, as he gets older, not in a form too strenuous. Good family doctors have helped in these matters. No doubt they could do more, if suitably encouraged, and perhaps with an extension of the principle of remuneration by contract.

Most of my generation would have been rather sparing with regard to anything in the way of a routine overhaul. We have tended to teach people to keep away from us unless there is some disorder to correct. Perhaps we have felt that it is hard to decide just what advice should be given, and certainly we believe that a sick man is more amenable to taking it. In the spirit of my time I think most of the best family doctors have felt that running the ruler over people who are in good health is not devoid of danger. It may make them conscious of themselves. But to some extent I speak historically of the past. If in this changed world of to-day they are already health conscious, perhaps the point of view is altered. We can still learn from past experience, however we might sometimes seem to fail as servants of the public. Within a short time of some routine examination many disasters, quite unexpected, might occur as for example a coronary thrombosis or a haemorrhage from a duodenal ulcer.

An examination before entering one of His Majesty's Services is, of course, essential, even though it be granted that a few mistakes are inevitable. In the main the protection is for the service. Although the conscript is entitled to protection which the volunteer may not desire. For the individual there is value in medical inspection before taking up a career—as for example nursing. Banking companies and industrial organisations have their employees examined, some for superannuation and some because of the responsibility of the work—which would apply to the engine driver or the signalman. The individual must suffer in the interest of the community if need be but as a profession we must admit that it is a lesser responsibility for fallible medical opinion to advise in relation to symptoms than to assess the significance of some apparently abnormal physical finding. In doubtful cases, where there is risk of individual hardship, it would be right to consult with the man's own doctor and there should be facilities for a second opinion.

The Healthy Man and the Doctor

"Some people," said the Healthy Man, "recommend a routine medical examination once or twice a year."

"Yes," said the Doctor.

"You, yourself," said the Healthy Man, "could have such an examination without expense and with little inconvenience."

"Yes," said the Doctor.

"When were you examined?" asked the Healthy Man.

"I hardly remember," said the Doctor. "Once, I think, as a medical student, once for life insurance, before I got married, and again in the 1914 war for military service."

"I see," said the Healthy Man. "Thank you."

During my time the progress of medical science has enabled us to correct some former errors—such as we made with albuminuria or glycosuria. It has enabled us to make a fuller examination in many ways, notably radiology of the thorax. At first sight it would appear that there is no great difficulty in a modern routine overhaul.

The young doctor of to-day with his advantages, may feel confident that he can do justice to such a proceeding. He must not, however, consider that a senior is reactionary if he suggests that history may repeat itself and that some of the variations from the normal, which modern methods may detect, will only be assessed correctly after the experience of a generation.

The question of medical examination in the absence of symptoms might be discussed from many points of view. A complete survey would make a long story. These are stray thoughts perhaps loosely put together. But Tristram Shandy says "As no one, who knows what he is about in good company would venture to talk all—so no author, who understands the just boundaries of decorum and good-breeding, would presume to think all. The truest respect which you can pay to the reader's understanding, is to halve this matter amicably and leave him something to imagine, in his turn, as well as yourself.

of 1887 and 1897 when life in general and the British Empire seemed to be secure.

Gee believed that the chief causes of arterial disease were heredity and high living: something of a gouty diathesis for which so many took a "cure" at some Spa. I have heard the story of an anxious patient calling at a distinguished door-plate, seeking an interview that morning, only to be told by the footman that the great physician was full up with appointments. The patient returned in the evening to say he felt so ill that he must be seen but the footman was adamant. Relenting a little, however he said, "If it is any use to you, Sir I may say they are all being sent to Homburg to-day." No doubt it was a nice change and relieved the over-loaded metabolism.

Many Victorians lived to an active old age. One met them in one's boyhood. There were examples in the medical profession. Probably these did lead abstemious lives, and there is the well-known example of an abstemious Liberal Prime Minister full of strain and anxiety who required no more than the care of a laryngologist to coax his voice back at the age of seventy-six, so that he might carry through one of his greatest triumphs in the Midlothian campaign. Robert Louis Stevenson wrote of "the perils of the dinner table, where most of our ancestors have miserably left their bones." As an epitaph it is beautifully said no doubt there is something in it, but when we try to get right down to the disposing causes of arterial disease, I grant you there is something in heredity but I am not convinced that high living of a self-indulgent kind is the chief cause.

Gull once said, "Bright observed the heart and the kidneys, but he forgot the man between, the whole man should have been included in the specimen." And Gull himself wrote on arterio-capillary fibrosis. It is the essentially arteriosclerotic and hypertensive cases which are most worthy of discussion, because in the early stages there is more scope for guidance and treatment and Gee's clinical story records arterial disease as the first physical finding. Perhaps the haemomanometer (which came into use about 1905) would have given a high reading at the first examination when "biliousness" was the predominant symptom.

I remember the prosperous Victorian dinner table, and very

The Beginnings of Disease

> I keep six honest serving-men
> (They taught me all I knew),
> Their names are What and Why and When
> And How and Where and Who.
>
> RUDYARD KIPLING

Sir Samuel Gee published a medical lecture on *The History of a Case of Cerebral Haemorrhage* it is not dated, but others in the volume come between 1867 and 1903 and we know that he described Coeliac Disease in 1888. The lecture begins by contrasting hospital with private practice in the former post-mortem examinations are the rule, but in the latter one may know much more about the patient and perhaps follow most of his life history

The clinical story opens with a middle-aged man, previously robust, seeking advice for biliousness he fares sumptuously and by this time feels he needs the wine he takes. The next event is painless haematuria the arteries are palpable a little tortuous, and the pulse "a little hard. He is between 45 and 50 years of age. When the blood clears up there is no albuminuria. He resumes his former habits (that is the over-eating and drinking) when in two or three years the *haematuria* recurs. Gee thinks of heredity and good cheer as disposing causes. The essential lesion is arterial degeneration. Advice, which is not taken, is given about more abstemious habits and perhaps another doctor suggests "good old port,' because he thinks the patient is a peg too low In the course of time there comes an urgent call, he is mildly aphasic with numbness in the right arm and slight hemiplegia. There is albuminuria, the arteries are thicker the pulse more hard and the cardiac impulse heaving He takes the advice offered, with benefit but then relaxes, goes for a holiday and dies of cerebral haemorrhage. "He was nearly sixty years of age." We may call him the prosperous Victorian—the Man of Property—and shall we say he died some time between Queen Victoria's two Jubilee years

enough cricket and golf to keep him fit. He died of coronary thrombosis.

Speaking from memory I once looked up some records which had been prepared for Lord Dawson, who was opening a discussion on Hyperpiesia. School-boys were investigated so that healthy arteries could be studied. There was some evidence that boys working for a scholarship gave a higher reading than their fellows. This line of thought seems to me to be the most in keeping with my own experience. To be a little bit keyed-up—not able to relax. Is there a lesson to be learned from cricket? It is easy enough for two batsmen to go in first and knock up a hundred runs, but the next man to go in may not get any. If he is at all keen, he has been sitting prepared for a long time, risen for an occasion that might come any minute, but flat and tired when it arrives. Some people get keyed-up in life, time and again, for an innings which they never play.

No doubt there are many causes of arterial disease. Perhaps this idea that arterial hypertension is essentially due to psychic causes is too simple an explanation. In these days, however, it would make a better clinical story than the one of a prosperous, self-indulgent Victorian digging his grave at the dinner table. Moreover it can be applied to both sexes. I think it may be accepted that there is more arterial disease in women than formerly. If this be the true explanation, where is the Homburg treatment for the mind? It was a simple thing to advise a few weeks of a simple life, but it taxes all the ingenuity of the best family doctor to relieve the anxious temperament. Trying to relax may be rather like trying too hard to go to sleep, which sometimes defeats its object.

In the advanced stage of disease the hard pulse and the hard arteries are both present in a considerable number of cases, but in the beginnings we may be chiefly concerned with one or the other. William Cadogan, physician to the Foundling Hospital, who was created a Fellow of the Royal College of Physicians in 1758 believed that gout and all chronic disease could be traced to the same causes—indolence, vexation and intemperance. I think this contains some wisdom. These three—and in our time the greatest of these is vexation.

good dinners too nothing that could possibly do any harm as an occasional event, with a quiet evening and 'carriages at eleven." Their children and grandchildren have eaten less and taken more exercise, but their alcoholic liquors have been more poisonous in themselves, much more likely to damage the mucosa of the stomach.

Do we really know anything about the early stages, or the aetiology, of arterial hypertension and arterial degeneration? I can call to mind four men, whom I knew really well, of each one of whom it could be said, "he was nearly sixty years of age" when he died in all of whom the arterial problem was recognised some years before and every one of them abstemious. The first was a successful surgeon, not overworked but not having the gift of doing things with ease. He smoked a pipe in moderation. Both his parents lived till eighty I believe he adopted a career which entailed strain, which would have been beyond the capacity of his relatives. He was never robust, but played a little tennis and golf He died of cerebral haemorrhage. The second was a medical man in a salaried service. A keen footballer as a student, he remained in good training with cricket and golf, both of which he played with ease. He was abstemious and a moderate smoker His work was well in hand, but I think he probably had considerable personal anxiety He had a coronary thrombosis and died suddenly later The third was a successful business man. Three of his grandparents lived till eighty as did several uncles and aunts, and his parents till seventy-five. He was a total abstainer and a non-smoker He did not eat too much, of which some teetotallers are accused. He had no restful hobbies, and played football when he was old enough to know better He played cricket till well over fifty and I should say made an anxious business of it, rather than a recreation. He ended with a cerebral thrombosis. I think he was restless and keyed-up by nature. He had few anxieties. The fourth was his brother—a familial association, but not hereditary in view of the forebears. He was a total abstainer till forty years of age. He smoked a pipe and had restful hobbies. They were in business together, and perhaps got a bit excited over it, but did not suffer from failure or too great success. This man had a normal, healthy existence with

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Essentially the idea of collective investigation is quite sound, but it is one particularly difficult of approach. I should imagine that one enthusiast in each district would need to go about, really getting down to the subject with the doctors. Something of this sort has been achieved recently in Newcastle-on-Tyne, with regard to infant mortality. A few years ago the Ministry of Health put forward an enquiry about cancer which was a com-

In 1921 I was interesting myself in the life history of the renal dwarf. I sent the reprint of some notes to the Medical Officer of Health for the county, asking him to be so kind as to get the school medical officers to look out for examples of late-rickets. He replied that what we wanted was a study of the beginnings of disease. I believe he had got this thought from the writings of Sir James Mackenzie, but it was not new Forty years previously Sir William Withey Gull had expressed the thought in several published addresses. I was not unduly discouraged. It is a sound medical practice to know first the morbid anatomy, which tells us what we are dealing with and where. Then comes the clinical picture of the established disease which teaches us when and in whom. Next follows the study of the early symptoms which lead towards the beginnings of the disease, but often enough we cannot say how the condition began or why

One would conclude that the two conditions—hyperpiesia and arteriosclerosis—are favourable for the study of the beginnings of disease. Gull, like Gee, has something to say about his private practice being a necessary corrective to the hospital experience. He emphasises the importance of morbid anatomy but a true pathology cannot be reached by studying the results of disease on the post-mortem table alone. (It was a distinguished surgeon in Leeds, a generation later who taught the pathology of the living, as seen in abdominal operations.)

It would Gull says, be like trying to determine the physical geography of a country by measuring and analysing the contents of its rivers as they fall into the sea. It would seem, however that he like other explorers who have entered by a river mouth, found the real difficulties began as the channel narrowed and tributaries fell in, because he was an enthusiast for a movement called the Collective Investigation of Disease, which does not seem to have traced anything to its source.

Someone ought to publish a complete history of this scheme. The prime mover was Dr Mahomed of Guy's Hospital in the eighteen-eighties an enthusiast often full of a new idea, but he really did launch this one, and if it landed on the rocks in time, perhaps it was because he, its first secretary died of typhoid fever at the age of thirty-five. Gull gave two addresses on the subject,

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plete failure in the area in which I work. Doctors were invited, when a patient died of malignant disease, to send a notification to the Medical Officer of Health, from whose office a medical enquiry would be instituted with the relatives about the early symptoms and origin of the complaint. I wonder if the human element in Dr Mahomed's Collective Investigation had been studied. How could any doctor countenance an enquiry of that sort about his patient? He might have tried to answer a questionary with regard to those who had consulted him too late—for example with a breast tumour or for metrorrhagia—although health propaganda from that point of view sometimes aggravates the problem by frightening women away from the doctor District nurses living and working in the area, are the people to get the confidence of these women. But it would be quite impossible to allow another medical man to make enquiries from the relatives about the early symptoms of a disease, such as carcinoma of the stomach, at a time when there had been headlines in the daily papers, taken from the speeches of a distinguished surgeon, that 'cancer can be cured' It is a much deeper psychological problem than just the reputation of the family doctor, although that reputation is one of his best therapeutic assets and is usually deserved. But anyone who has known a difficult widow with a fixed idea that her husband should have lived, could explain that this type of misfortune would be multiplied by such an enquiry with detriment to the community

There is something very attractive about collective investigation, but if we revive it again we must approach the scientific medical societies in the first instance. There was a little bitterness about the want of response to the local cancer scheme but if it had come before our medical society with two or three prepared speakers, and a general discussion, there would have been no misunderstandings and any collective study would have been along quite other lines.

We are developing new branches of medicine. There is Industrial Medicine and there is Social Medicine. The Industrial Insurance Societies have spoken of research into some of the commoner disabilities. They have high expectations of the National Health Insurance records Their point of view is very

reasonable· but the wisdom of the best family doctors must be sought before rash promises are made. For certification purposes there must be a label but this is not necessarily a diagnosis.

Sir James Mackenzie has much to say about the beginnings of disease and even more about teachers of medicine, who should have had many years in a family practice. I see his point, but somehow I would put it in a different way Gull and Gee valued their own private practice as a corrective to their hospital experience. Their successors in the teaching schools to-day are almost entirely engaged in consulting work. We hear a good deal about post-graduate study nowadays, which of course is most important but I venture to suggest that, if it is handled in the right way the post-graduate students coming from a family practice will bring their share of knowledge. It should be carried out in that spirit. If I may give a personal reminiscence, I went round my wards once a week for fifteen years with several family doctors, which added up to a considerable number in all, so that I speak from experience about the knowledge they can impart.

I think in hospital to-day we do ask the questions how did this come about and how will it end. We have "*follow-up*" clinics, although we must watch that we do not take over the family doctor's responsibility The beginnings of disease may be insidious and come through varied disposing causes. It is common knowledge that an illness with a favourable prognosis may occasionally seem to undermine some constitution. On the other hand, when one reads a debate in Parliament about the working hours lost through comparatively minor ailments, one would like to write an essay on how a little illness may save many lives. It is the artisan's chief rest from work.

How may one commence the study of the beginnings of disease? On the whole I think I should aim at a psychological approach. As William Cadogan put it—vexation. What was the state of the nervous system when these symptoms crept in? If we return to Gull's metaphor of gross disease, comparable to the waters at a river mouth, I think a navigator travelling up-stream toward the narrows and the source should have graduated in a general practice.

There is a good deal of pseudo-scientific nonsense talked about

diet, but the real advances in knowledge of this problem should be of great importance in relation to the origin of much disease. It is difficult, however, to go back over a period of years to find out what really has been the fare of a particular individual.

Mackenzie in his later years was starting out on a detailed investigation of the subjective sensations of which a patient might complain when he was "out of sorts" but the few examples traced in his writings will only illustrate an early diagnosis. The improved methods of physical examination have done so much for this. The question that we wish to solve is why does a particular disease begin. In a large proportion of cases we do not know the answer. It is something to know that but I am all in favour of William Cadogan's teaching about the evils of indolence, vexation and intemperance. These are sound general principles but it may not be fair to apply them to a particular patient. When we were decorating the wards for Christmas 1899 we found a text over the bed of one of our patients which said, '*Sin no more lest a worse thing befall you*," and in the spirit of fair play due to our ignorance of the aetiology of his disease, we put the text into the coal fire which had uses unknown to modern central heating.

From both Social and Industrial Medicine we may look for the answer to some of our questions about the origin of disease. But we know that the managing director and one of his labourers may develop a similar morbid condition. When we do not know how or why a particular disease begins we can only discuss the laws of hygiene as a possible preventive. If I should add that I believe the right character developed in childhood, is the best insurance against avoidable disease, it would seem that I have expressed this thought before. The *Autocrat of the Breakfast-Table* however, says "*He must be a poor creature that does not often repeat himself*."

Trotter in 1933 points out that in the atomic world all quality is quantity. He foresees the necessity of "an exact and exhaustive numerical exploration of the facts of disease." He suggests that "our final conclusion must necessarily be, that if medicine is to acquire a secure foundation of exact and measured data, it can do so only as the result of enquiries far more widespread and co-ordinated than have yet come within the range of practical con-

templation." This is a return to the idea of collective investigation.

If we develop a State Medical Service we may facilitate this kind of research on the other hand, we might kill all initiative. What were the words already quoted from Oliver Wendell Holmes? "Every real thought on every real subject knocks the wind out of somebody or other." Will it be unwise to knock the wind out of some senior in a salaried service? On the other hand, would it be possible for a number of juniors to elect the right senior? In one sense that has been our principle in a free world hitherto, because young men have been attracted to the clinics and laboratories where they find the most stimulating teachers.

The Non Co-operative Society

"One man," said the Morbid Anatomist, "can work out what a particular disease is and where it will be found."

"One clinician," said the Physician, "may study the subject of when it occurs and in whom."

"The most important knowledge," said the Scientist, "would be how it comes about and why."

"Yes," said the Physician, "we need more knowledge of the beginning."

"For that end," said the Scientist, "many research workers must combine."

"True," replied the Physician, "but to hunt with a large human group is not so simple as with a pack of hounds in which natural ability will take the lead."

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"For that end," said the Scientist, "many research workers must combine."

"True," replied the Physician, "but to hunt with a large human group is not so simple as with a pack of hounds in which natural ability will take the lead."

Medicinal Remedies

"I can't tell you just now what the moral of that is," said the Duchess. "*But I shall remember it in a bit.*"
"Perhaps it hasn't one," Alice ventured to remark.
"Tut, tut, child!" said the Duchess, "*everything's got a moral, if only you can find it.*"
Alice's Adventures in Wonderland.

It would be in the year 1898 that I attended a lecture on pharmacology of which the opening sentence was to this effect. "Gentlemen, an alterative is a drug which gradually alters and improves a diseased condition of the body, without producing any evident external manifestations." To come within the definition of alterative there had to be a little mystery about its action. At least it was not an emetic, or a purgative, nor yet a diuretic, or a diaphoretic. That wise old judge of human affairs—Samuel Johnson—wrote in a letter dated 1775 "my opinion of alterative medicine is not high.' I think perhaps arsenic and potassium iodide were the star performers. I suppose mercury and sodium salicylate were a little too specific or did we call them *facultative alteratives?* *I should not be surprised.* These lectures were by way of preparation for the wards. We took them during our anatomy and physiology days, and we had to pass in this subject, or take the whole examination again.

I suspect that both the lecturers and the examiners were a little ashamed of the whole thing When a tutor opened a revision class with the statement, the dose of croton oil is *not* half to one ounce," he was sure of his laugh like any other comedian, but it did not really impress his students favourably It all seemed rather queer We had got to pass this examination but it was not a real subject like anatomy or physiology—there was a catch in it somewhere. We could recognise that it was put before us in an artificial, non-committal way

I suppose our teachers knew that very many of the drugs about which we had to learn were indeed of little value, but it would

not help to tell us this. When Sir James Paget was an apprentice in Yarmouth, a cousin, who was a doctor in Chester wrote to him in 1830, "all the articles of the Materia Medica really useful may be contained in a Quart Bottle." Years later Sir James docketed this letter "very poor and foolish." No doubt he had been wise as an apprentice to treat it with scorn, but scientifically it may have hit the mark.

I think we were taught in the spirit that it would never do for a young doctor to know less than a dispensing chemist. I was encouraged later on when I attended Mr. Arbuthnot Lane's surgical out-patient department, where he would prescribe a little arsenic and some iodide, and then say that he would leave the making of it up to the dispenser, because he knew so much more about it. For examination purposes we could write out long lists of all the preparations of some drug or another with the correct doses but one of my friends, when a house surgeon, prescribed two things which would have made plaster of Paris—or so said the hospital dispenser—and one of my mixtures, on the only occasion on which I acted as a locum in a general practice, looked quite nice and peaceful when I wrapped it up—but it blew the cork up to the bedroom ceiling at one o'clock in the morning. No one was hurt, and strange to say my reputation did not appear to have suffered.

Now in the oral examination for materia medica, I was asked only one question by a distinguished London physician. I made the perfect answer. After forty-five years I remember it still It was jalap, ginger and cream of tartar. I still recollect the name of the powder when these three things get mixed together but in all these years that have gone by since, I cannot remember that I have ever prescribed it. Of course there are ways of remembering the composition of such powders, which either an examiner or a candidate may use. It was like those candles in Cranford—we knew and he knew and we knew that he knew and he knew that we knew that he knew It was an early practical lesson in keeping a straight face.

We may remember that Stevenson had a kindly word for the scraps of science which remained in his mind. He was grateful to remember that emphyteusis was not a disease, nor stillicide a

I have been reading Sir Henry Dale's Federick Price Lecture, entitled, "A Prospect in Therapeutics." After reading his masterly survey in 1943 it seems rather trivial to recount odd memories of mine at Guy's, and yet they catch a little of the spirit of the time. I remember the case of a boy with typhoid fever. He was progressing favourably with a mild attack, with no prescription on his bed-letter. The physician, who was President of the Royal College of Physicians, suggested that we should let him have a bottle of medicine, lest his mother should think he was neglected when she came on visiting day. One could write an essay on that. A boy does not do well unless his mother is satisfied. Sir William Gull had written "There are many good general practitioners, there is only one good universal practitioner—a warm bed." Nevertheless, the public were not educated to this truth when I was an undergraduate. Although a time would come when a young girl would write on a post-card "I am in the Derbyshire Royal Infirmary keeping warm under Dr. ——" (mentioning the physician's name).

For our pneumonias we knew the value of morphia hypodermically. We gave them brandy and a good deal of strychnine. We usually began treatment with ten grains of Dover's powder. They had a linseed poultice or an ice poultice—the latter rather difficult to prepare. One of our physicians got into hot water in a private consultation, by ordering a change to ice instead of linseed, with the result that the family doctor said his practice would be ruined.

I have one odd memory of a man with pneumonia, who looked, towards the sixth or seventh day, as if he might be defeated. We had got the last shot out of our locker when the physician came round. He prescribed ten grains of musk to be taken three times a day. We were told it cost ten shillings a dose. I put it down in a note-book, which survived until it was pulped to make munitions forty years later, but I have never seen musk prescribed again, although our patient pulled through to recovery.

One could write an essay on that incident. There are times when it is encouraging to everyone to have some little extra. It is in keeping with the spirit of a voluntary hospital that no

crime. These may be good conversational gambits, but what can one do with *pulvis jalapae compositus*, or with croton oil, apart from the folly of prescribing them?

There are some odd bits of knowledge that would have entertained us. As for example the link between Dover's Powder and Robinson Crusoe, that when a nurse used a Higginson's syringe she was perpetuating the name of a mid-Victorian Liverpool surgeon, that Peruvian Bark was used by one of Cromwell's soldiers as a specific remedy more than two centuries before the malarial parasite was identified. We might have been told that a Birmingham physician in 1785 wrote an *Account of the Foxglove and Some of its Medicinal Uses*, or that in 1891 at a medical society meeting in the north of England, organotherapy was born. Or perhaps we ought to say re-born, because we are told that the Chinese, long ago fed cretins on sheep's thyroid gland. I have often thought that in the medical curriculum it is the dull subject that should have the bright lecturer

Medicinal therapy was at a low ebb at the end of the nineteenth century Polypharmacy was dying Drugs which acted on the bowel had more or less stood the test of time. James Curry, physician to Guy's Hospital about a hundred years previously had been nicknamed 'Calomel Curry' Perhaps our great-grandparents had tougher insides and were not disposed towards a spastic colon although Lauder Brunton, in 1870, could say in a lecture— many years ago a paper was published on the action of belladonna as a purgative.'

I seem to remember that our lecturer in pharmacology told us that our drugs must cure safely quickly and completely, but that sometimes we had to give a medicine which we knew would do no harm and we hoped might do good. What a falling off was *there* We then entered the medical wards in the last year of the nineteenth century Pharmacology must be translated into therapeutics. I do not remember any special course. We just picked up what we could, and I do not think we were taken by surprise when we found that so little physic was in evidence. We had been warned—not actually in words, but compared with anatomy and physiology the subject of medicinal remedies had been presented in a manner unconvincing

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One could write an essay on that incident. There are times when it is encouraging to everyone to have some little extra. It is in keeping with the spirit of a voluntary hospital that no

expense must be spared. A good consultant likes to feel that he does not use anything in private practice that has not proved its worth in hospital. It was the right spirit. I always remember Mrs. Patrick Campbell in *The Thirteenth Chair* She was alone in the room, waiting for a spiritualistic message. There came a knock, and she said "It is a sign." When it was only the butler who opened the door to deliver a note, she said "Never mind—it was a sign *all* the same."

There was some criticism of the stock mixtures" in the dispensary It was understood that no dispenser had the time to make up all the bottles of medicine to separate individual prescriptions, but some of the older physicians were afraid that we should not learn how to write an elegant prescription. We never did learn but before very long the family doctor had his own stock mixtures, and the consultant concentrated upon diagnosis. As a house physician one kept to the few well-tried medicines. In the out-patient department we used the cough and digestive mixtures. By the time one had served a term as medical registrar it seemed to be almost a point of honour to have little faith in drugs.

In private practice and the out-patient department of a provincial hospital one seemed to find simple remedies rather more valuable than one had expected. The great thing was *not to* upset the digestion. Many of the patients who attended over a period of time received some sound advice, in divided doses, before the bottle was replenished. Some day when those large glass jars filled with different-coloured medicines in the hospital dispensary are no longer in general use, I hope one or two of them will be kept in the museum, so that the new psychiatrist will remember how his *predecessor* got the same result. It may make all the difference who prescribes the medicine. Mr Lloyd Roberts of Manchester knew this fact about the prescriber when he told his patient, at a consultation, that there was just one thing more' he wished her to take. After leaving the sick-room, he chatted away to the family doctor about all sorts of things, and then looked at his watch to find he must hurry away When the doctor asked for this one remedy he was told any old thing,' and left to prescribe it.

When the National Health Insurance Act came in, no one was more impressed than the domestic servant. She could not always call her soul her own, but now she had her own doctor. There was a certain distinguished lady whose cook went to her panel doctor, received a prescription, which she took to the chemist, and brought home a bottle of medicine beautifully wrapped, with sealing-wax and all. Harley Street could do no more. The cook derived so much benefit from one bottle, that the mistress went to the chemist and insisted on having one for herself.

The lay public believed in the efficacy of medicines. I was once playing what some people would call an important golf match. As the game turned in my favour, my opponent began to bemoan his fate, that he had forgotten to take "his quinine pills" before starting out. One could write an essay on that. If I could believe that quinine pills would improve my golf, I am sure I should play better after taking them.

Looking back, it seems to me that before the first World War some very good family doctoring was carried out on the assumption that a bottle of medicine had a high curative value. If it came from the doctor's house, made up by his dispenser or himself, the number of bottles was checked. Opportunities arose for giving advice and, what is not always remembered, of repeating the advice, which is just as important. Often enough while one member of the family drank a little too much medicine, it gave the doctor a chance to advise some other member about habits in general. It was sound and safe family doctoring. If a man could pick out acute appendicitis, or a perforated gastric ulcer, he was doing a good job of work. We did not know the expression "psychosomatic medicine." We had our failures on the psychic side, but not very serious as a rule. I think one should add that most of our patients in those days professed a religion, or at least felt that they held some philosophy of that sort handed down from their parents. It made a considerable difference. There was a mental background. Samuel Johnson said "There is but one solid basis of happiness and that is the reasonable hope of a happy futurity This may be had everywhere."

This medicine bottle, apart from what it contained, had a

trade of its own. I learned this, more than thirty years ago, from an old lady attending my out-patients One day she seemed rather distressed. A misfortune had befallen, and before she had the bottle replenished with something pink and warming she told me her story It appeared that she was by profession a purveyor of medicine bottles She noted those better-class houses at which a doctor made regular calls. She went round to the back-door in the best business traditions of buying in the cheapest market, to collect what bottles she could, and then wheeled them in a perambulator to such chemists as would give her the highest price. The tragedy befell when she left a full perambulator in the street while she had a glass of stout, and someone stole her whole stock-in-trade. I did what I could to help her but she never got her property back and the 1914 war brought a shortage of bottles so that the most distinguished patients had to return the bottle to the doctor or go without the medicine.

In 1919 we all seemed to start again—doctors and patients. Instead of a little milk and a bottle of bismuth mixture, we soon had a full gastric regime. The hospitals and consultants devoted most of their talents towards investigation and diagnosis. They did little prescribing except through the family doctor New remedies, more complex than the old simple mixtures, were available. There were many more qualified medical men and women who were not engaged in the treatment of disease. These, and other circumstances, tended to change the simple philosophy that a bottle of medicine was essential in every case of sickness. We had passed the stage of putting faith in a medicine which we knew would do no harm and we hoped might do good. We had to assess the value and dangers of some potent remedies—often enough with little power of doing good. There were vaccines, although these were not new and there were some attempts at chemotherapy which were not destined to survive.

It was necessary to reorganise medicinal therapy when the parenteral route of administration was becoming popular It would not be right any longer in hospital to appeal to the patient, or the relatives, by injecting something no better than a placebo I had intended to keep this miserable word out altogether I think, however, that placebo does come in here because two

quinine pills before a golf match are rather different from an injection of pituitary

What does the average doctor however feel about a placebo? To call his mixture by this name is to sign its death certificate as an agent of any therapeutic merit. Under ordinary circumstances he is in no mood to deceive his patient. He knows of a bottle of medicine which seems to have done good in similar cases. He does not wish to examine the evidence in a critical spirit. As an honest man, he would rather deceive himself a little than deliberately deceive his patient. One time or another he omits to use it, and the result is disappointing, so that his belief is confirmed that it does alter and improve a diseased condition. Sometimes the pure scientist has a pet theory of his own, which is based on evidence less convincing, and does not have the excuse of being helpful to other people.

It should be possible to write an essay on "Faith and the Bottle of Medicine—What we have lost and what we have gained." I do not refer of course, to the great advances in medical science, nor to the new prospect opened up by experimental therapeutics. It is more the simple psychic problem of common ailments with natural tendency towards recovery Gull said that remedies act best when there is a tendency to get well. The family doctor is reconstructing his methods, but he has lost some of his power of keeping in touch with simple problems. It is in the nature of *things in a family* practice, that a doctor cannot at all times go fully into a problem. A wise man may stop the gap with a few bottles of medicine and observe his patient, keeping his own counsel.

The pure scientist has tended to criticise some of our therapeutic efforts—it was so with our hormone remedies—but he does not realise always what an urgent problem a sick person may be. We do not wish to pander to the relatives of the type which H. G. Wells called the "Gawd takers," but we must make some attempt. It may be expensive, and seem more futile, to use something quasi-scientific instead of the bottle of tradition.

In hospital some of our simple investigations, such as a leucocyte count, may take the place of a placebo. It will show that we are being watchful but the family doctor has a very real problem, which each must solve for himself. It was all very well for

Trousseau to hand his prescription to a patient saying "Take this while it is still curing" He had other more important duties to perform. But it is a nice problem for decision, as to whether one shall appear to commit oneself to some remedy which will be known to the patient and the relatives. The majority will recover and it will create a demand. That old bottle of medicine, dispensed on the doctor's premises was discreet and told no tales. It could be varied according to circumstances which were not related to its therapeutic powers. We have lost something in its passing

Of course the obvious answer seems to be that the psychological side of the illness should be assessed. This, I think, is increasingly understood, but sometimes there are too many cooks—only the doctor could make up the medicine, but any friend or relative, may take a hand in making up a mind. Perhaps we find that a small upset becomes a big affair, and we wish the therapeutic efforts could have been corked up between the appropriate times for dosage.

I have been trying to remember what our simple mixtures were. Rhubarb and soda, or gentian, was popular Perhaps a little bromide would be added. Nux vomica was useful. Or it might be bismuth or a carminative. There was more in valerian than its unpleasant taste. *Did so-called expectorants do any good?* The bronchitic patients thought so The modern psychiatrist in his consulting room will prescribe some much more dangerous drugs than these. It is in no criticism of his work that I would say that, occasionally it may be for the drug his patient comes.

It is easy for the consultant to know where he stands. He must not recommend in private what has not proved its worth in hospital. For the family doctor whose calling is so much more difficult, the indications are not so clear I have not mentioned the spate of literature which flows from the drug firms, but I have touched upon some of the problems which have been in evidence during the last forty years.

In the *Life of Sir William Osler* there is an interesting story of how a certain layman came across the famous textbook of medicine in 1897 He read the whole of it with deep interest and pleasure. But of Osler's views on treatment he wrote. "To the

layman student, like me, demanding cures and specifics he had no word of comfort whatever." And the story tells how in the course of time, out of this thought, the Rockefeller Institute was founded.

Osler himself, wrote as follows to a medical critic, "—about my textbook: there is so much treatment abroad in the country that I have to do all I possibly can to lessen it." Sydenham, more than two hundred years previously had advised doctors that they should "not so far blunder as to fancy that they have saved the lives of patients whom it would have been a hard matter to have killed."

In 1943 Sir Henry Dale can point to the achievements of experimental therapeutics, and look forward to the prospect of a brilliant future for this branch of science. There may be a change in the doctor and patient relation which will take the last dregs of faith out of the bottle of medicine, but it was a noble stop-gap between polypharmacy and the coming of a new science.

The world goes round. An old idea, discredited in the light of progress, may come into its own again. When we were young—some cousins and myself—we went for a walk with a nursery governess. When one of us fell into a bed of nettles we were shown a dock leaf on the other side of the road, as a proof that Providence had placed at hand a cure for each disease, if only we could find it. An old wives' tale which might raise a kindly smile from the medical profession by the time I qualified. Cures were few and far between: to hunt for them seemed scarcely worth the trouble. The study of medicine resolved itself into how the nettles can be avoided and in which month it is they sting.

Then came the sulphonamides and penicillin—neither of them newly discovered when first applied as therapeutic remedies. Was it possible that the old wives' tale was true?

Not altogether an old wives' tale, however; for in the days of Cromwell, Thomas Sydenham had written. "Nevertheless I have no doubt that out of the abundant plenitude of provision for the preservation of all things wherewith Nature burgeons and overflows provision has also been made for the cure of the more serious diseases which afflict humanity: and that near at hand and in every country."

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Pathognomy at the Bedside

> For there are mystically in our faces certain Characters which carry in them the motto of our Souls, wherein he that cannot read A.B.C. may read our natures.
>
> *Religio Medici.*
>
> SIR THOMAS BROWNE.

It would be a good question to set in a final examination: Describe what may be learned by study of the patient's countenance. Most students would mention the Hippocratic facies, the risus sardonicus, circum oral pallor, a malar flush—all these and more—not forgetting cyanosis and dilating alae nasi. One that would be worthy of honours should add that many of the most important conclusions may be drawn from changes in facial expression, which are there to read but in themselves are indescribable.

The ward clerk sees some of them. Sister may see what others miss. The house physician sees much more than when he was an undergraduate, and the physician most of all—if he is the right type of physician. Now a shrewd ward clerk, looking on, may see much more expression in the patient's face when the physician arrives. There is only one personality concerned with Babinski's sign or a rash (excepting of course a blush) but there are two personalities, in the ordinary way, to many facial expressions. The simplest illustration may be taken from a man with a slight degree of facial paralysis, in which we all know that an involuntary smile gives better evidence than attempts at voluntary movement. A doctor friend of mine once told me that he found it difficult to achieve a smiling patient. It is the easiest thing in the world if you remember that mirth is infectious and find some simple means of smiling with him.

A good medical face at the bedside, however, draws out from a patient innumerable expressions, of all varieties and delicacy of shade. It may be compared to a wireless receiving set. It picks up messages in direct proportion to its sensitivity. And moreover

Scientific medical study has been concerned with the nature of disease. The layman has been critical, at times, about our neglect of therapeutics He has noticed that a good deal of medical science is of interest for itself and has enquired about its application. Guesswork polypharmacy was killed before my time by the morbid anatomists. We have covered a whole era from the alterative which would do no harm, to the drug which is not too toxic, and can be tested outside the body against the causal agent of the disease to demonstrate that it can do good.

No doubt the Duchess was right when she said "everything's got a moral if only you can find it. When a new therapeutic agent of real potency seems to arrive as a sudden discovery as if it were a happy accident, the moral of that was explained by Pasteur when he said. "In the scientific world chance only comes to the mind that is prepared.'

He would have cut a poor figure as a doctor. It may be a bad sign when someone does not look us in the eye. It was the pawnbroker in Stevenson's story of *Markheim* who said that sometimes a customer with something to sell could not look him in the eye, adding, "Well, he has to pay for that." For those of us, however who meet people down on their luck, or tired and out of health, it behoves us to reflect that one who does not look us in the eye might do this quite easily with someone of greater understanding than ourselves.

By what right does one use this word Pathognomy? I got it from my great-grandfather who was a Member of the Royal College of Surgeons, London, and who became, eventually lecturer on Elocution at Harvard University He edited a book on physiognomy and it appears that pathognomy signified the study of the movable and moving parts of the face, or as they called it, the physiognomy of the passions. We read much about the standard types—The Sanguine, The Choleric, The Melancholic and The Phlegmatic, but there is no mention of the finer shades. It is far removed from anything which my great-grandfather can have used at the bedside of his patients before he gave up medicine for elocution—perhaps what he saw there may have been indescribable in words.

In the standard book on physiognomy of the eighteenth century by the German, Lavater we find the word "pathognomy" in the index, and turning up the reference may read "Pathognomy has to combat the arts of dissimulation physiognomy has not." From this, I suppose, we may draw two conclusions. First, that the word was understood so well that no definition was required, the second, that Lavater was more interested in anatomy and measurements of the features than in facial expression.

It may be true that "pathognomy has to combat the arts of dissimulation," but the messages, when understood, have less possibility of being misleading than have words. Joseph Addison, in the *Spectator* wrote, "a man's speech is much more easily disguised than his countenance." Dickens points out that there may be no messages, when he describes Ralph Nickleby's clerk: "The expression of a man's face is commonly a help to his thoughts, or a glossary on his speech but the countenance of Newman

when it is obviously working, more messages are transmitted. I once went out in consultation to see a well-known woman whom I had never met. She called for her horn-rimmed glasses and gave me an honest stare. When I said 'Do I pass the test?' she responded "You'll do" This is not so trivial as it might seem. For once in a way that it is expressed in words, there are many more occasions when it can be assessed by the patient's facial expression. A child on all occasions, and an adult who may be seriously ill should have the opportunity of taking a good look at a doctor who is a stranger In hospital one may come straight to the point, in some cases, by asking a young woman why she is looking at Sister whom she can see any day in the week, and not at oneself.

We know an anxious expression we can recognise fear We may get a hint that something is withheld, or by contrast a look of complete confidence. The common emotions of suffering, surprise or disappointment can be recognised in the face. We can see perhaps, that there is some question on the tip of the tongue. There is little to gain by verbal descriptions. It may be all commonplace enough, but the physician who can send his messages in return by the same channels, or sometimes by word of mouth, will get better results than one who uses conventional gestures and platitudes in the belief that he has a bedside manner

The eighteenth-century enthusiasts for their science of physiognomy liked to use high phrases, such as to call the eye the window of the soul. It is true that the use of the ophthalmoscope is not the only means of looking beyond the lens. It is also true that in some cases of hysteria, or if we may use the term, state of nervous exhaustion, the patient may pull down the blinds of the window by closing the eyelids.

Often enough, however there is something short of this, in which a lack of mutual understanding is the reason why no messages are passing When I was a small boy I heard a cold and rather pompous grown-up laying down the law that no dog could face the human eye for long When we were relieved of his presence I tried out the experiment with my own dog and found that we could look at each other almost indefinitely I wondered what was wrong but I think now it was the grown-up

logical Society held its first meeting in 1832, on which occasion my great-grandfather was invited to give the inaugural address. As befits the efforts of an elocutionist, it has a fine flow of sonorous words, but he skims lightly over the bumps, telling the Bostonians to have an open mind in their studies, and not to expect too much.

I do not know when phrenology died, but I have seen it as a side-show beside the seaside and the "professor" at half a crown a time, was well worth the money to the small boys looking on. One of the first patients I attended in private was a pawnbroker who had on his mantelpiece one of those models with a pot head marked out in little green squares on the surface, with love, envy ambition and all the rest of them printed. My patient left a considerable fortune, but was very reticent about his dealings in phrenology

That branch which the eighteenth-century physiognomists called pathognomy progressed into the study of the expressions. It was in 1806 that Sir Charles Bell described the facial muscles in his *Essay on the Anatomy of Expressions*. He attempted to point out the arrangements by which the influence of the mind is communicated to the muscular movements which usually accompany the various emotions and passions. Duchenne in 1862, with the aid of photography and the use of electrical stimulation, confirmed and elaborated this work. Finally we have Darwin's book on *The Expression of the Emotions in Man and Animals*. He was concerned with such questions as the reason why we turned up our noses in contemptuous moods. Not, you make me tired—but, I do not like the smell of you. He admits that there are many well-recognised expressions of the countenance that are difficult to describe. He concludes that our expressions, through evolution, are inherited and have become in-born instincts.

It was Edgar Allan Poe who could see the other side of this. There is that school-boy in his story of *The Purloined Letter* who said, "When I wish to find out how wise, or how stupid, or how good, or how wicked is anyone, or what are his thoughts at the moment, I fashion the expression of my face, as accurately as possible, in accordance with the expression of his, and then wait to see what thoughts or sentiments arise in my mind or heart, as if to match or correspond with the expression." I think this is

Noggs, in his ordinary moods, was a problem which no stretch of ingenuity could solve."

Physiognomy had been studied by Hippocrates, Aristotle and Galen. The layman had views—just as he has to-day. Joseph Addison could write in the *Spectator*: 'For my part I am so apt to frame a notion of every man's humour or circumstances by his looks, that I have sometimes employed myself from Charing Cross to the Royal Exchange in drawing the characters of those who have passed by me.' He was thinking probably, in the main, of facial expressions. Lavater, who concerned himself chiefly with measurements and the more fixed features, gives one hundred rules, but they are not very convincing, although there may be some wisdom in what he has to say about the forehead, the nose and the chin.

Mr Shandy took the nose very seriously. You remember how he was prostrated with grief when he heard that Doctor Slop had broken the bridge of his first-born's nose with ill-applied forceps. To remedy this permanent handicap in life, he decided his child must be christened by so high-sounding a name as Trismegistus. Although, with a whole nose, he would have let him enter the battle of life as plain George or Edward.

To digress into this philosophy of nomenclature is not without interest for the psychologist. Stevenson has a word to say about those who come 'top-heavy from the font." As for example—William Shakespeare Brown. Now from time to time, a good family doctor may get a side-line on the parent's psychology by coming across a child with a name that is a trifle heavy. In all seriousness, it would be disastrous to exercise any levity but the doctor may have got a hint, which will guide him towards a little correction. If Augustus Lancelot Jones, aged ten years, is given out leg-before-wicket, he is more likely to dispute the umpire's decision than if he had been christened John William.

In the nineteenth century physiognomy split along two lines. The anatomical measurements degenerated into Phrenology. It is surprising what serious consideration this so-called science received, as may be seen by study of the early numbers of the *Lancet*. It flourished across the Atlantic. The Boston Phreno-

logical Society held its first meeting in 1832, on which occasion my great-grandfather was invited to give the inaugural address. As befits the efforts of an elocutionist, it has a fine flow of sonorous words, but he skims lightly over the bumps, telling the Bostonians to have an open mind in their studies, and not to expect too much.

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rather an attractive idea. There might be *something in it*. There are difficulties, however in its practical application away from the monkey-house in a Zoo

From facial expressions we come naturally to telephone conversations because what are spoken words unsupported by a look of any sort? If one sits by chance, in the office of someone doing big business, it does seem extraordinary that it can be carried through over the telephone. How can he tell that the man at the other end is speaking the truth? How can he tell whether the other man is satisfied, or whether he is weakening in a bargain? Perhaps a future generation, with television, will solve this difficulty But when a doctor goes into a practice, he soon learns that there are some things which can only be settled face to face. Suppose there is a patient seriously ill in a private house. There is every justification for some anxiety on the part of the relatives. In my opinion, the doctor is free to ring up the house to obtain a report on his patient, but, on the other hand if a relative in the house rings up the doctor it is almost certain that he should make the opportunity for a special visit, reasonably soon, to allay some anxiety which may grow and reach his patient. The doctor cannot tell whether his opinion has given satisfaction unless he has seen the facial expression of the enquirer I do not mean that he must take seriously every foolish question over the telephone, but in an art as difficult as medicine, he should refuse to give opinions on serious matters without seeing the questioner

Every doctor knows that facial expression at the bedside is all-important during a physical examination. What a difference between one surgeon, with delicate hands, gently insinuating his fingers around what is called Macburney's point, watching his patient's facial expression the while and another surgeon prodding his fingers into the right iliac fossa with the comment, "Does that hurt?" The one gets the true evidence, although the other may get the appendix.

Now about this science of physiognomy It seems improbable that we shall try to revive it. Yet, I suppose, we do judge character by looking at the countenance. There are some anatomical features that impress. For example we have the Roman nose,

the receding chin, the broad forehead. When Tennyson wrote of "narrow foreheads, ignorant of our glorious gains" it was not just poetic licence, although our civilisation has had some shocks since then. Lavater says, "Whoever saw a hero with a small snub nose!" But that is another story. There must have been lots of heroines with a nose of no great significance. We are not concerned with heroes. (Or with noses. "'Tis a pity, said my father that truth can only be on one side, brother Toby—considering what ingenuity these learned men have all shown in their solutions of noses.—Can noses be dissolved? replied my Uncle Toby.")

If science is a little shy of dogmatising about the rules of physiognomy it is probable, nevertheless, that our patients exercise their physiognomical judgment of ourselves. Let me repeat the words of Sir Thomas Browne: "For there are mystically in our faces certain Characters which carry in them the motto of our Souls, wherein he that cannot read A.B.C. may read our natures."

Soon after I went into a practice, the wife of an artisan said she knew that I tried to get people well. It gave me rather a shock. I had not thought of any other endeavour. An old man told my senior that I had said his wife was doing well, but that I looked serious. Another patient said that she could not tell, by looking at me, whether or not I was worried about her condition. I assured her that there was no cause for anxiety but that I should not show it if there were. It was all so different from the Medical School days. Although we had been under observation—particularly by children and old women. In a private practice, either general or consulting, our patients study our expression to try to read our natures and our thoughts. We should give them the opportunity of having a good look.

One day when visiting a sick child I said that I liked the trained nurse whom I had met going off duty. My patient told me that she might be clever but that she "fussed her," adding the comment that a nurse ought to be "a comfortable old party." It is nice when going round the wards to have a Sister who is used to one's ways, who can prepare a patient for examination, but she must not rush the situation. The physician should take in the

rather an attractive idea. There might be something in it. There are difficulties, however in its practical application away from the monkey-house in a Zoo.

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You may be right. And yet, if you stand by the bedside studying the countenance for ten or twenty years, a time may come when of pathognomy you would use the words which, in another connection, the Red Queen spoke to Alice "You may call it nonsense, if you like, but I've heard nonsense compared with which that would be as sensible as a dictionary"

whole of the case without fuss, and the patient should examine him, before the physical investigations begin.

There is plenty of scope for the undergraduate medical student in the wards to exercise a wise understanding of illness and to pick up some knowledge of human nature. In my time we used to have one or two cots for children in the general wards. Two or three months after I commenced my clinical work a nice little girl called me "doctor" but a more sophisticated Cockney brat called out: "That's not the doctor, that's the ward clerk." It is not until one has the responsibilities of a resident officer that what I have called pathognomy at the bedside can become a practical study. One must begin with delicacy of feeling, without too much assurance, nothing can be worse than a stare which puts a patient out of countenance.

Ought I to apologise, however, for digging up this word "pathognomy"? Was it better in the grave with those from whom I obtained it? I do not find it in an English medical dictionary and was surprised that it appears in an American medical lexicon, where it is defined as "the science of the signs by which disease is recognised." This covers a wide field—I did not know. I feel almost sorry that I looked it up. When Humpty Dumpty explained the meaning of his word "impenetrability" he said "when I make a word do a lot of work like that I always pay it extra."

I have tried to make something of pathognomy in the sense in which the eighteenth-century physiognomists used it. To them it was "the motion of physiognomy." The doctor should learn to study his patient's facial expression, should learn to be under observation himself without being self-conscious, and to have enough reserve to be able to keep his own counsel without having a face like Newman Noggs. In diagnosis and treatment he gets the best results who has a receptive countenance.

"Yes," you say, "that may have been all right in your young days but now we have clinical pathology, radiology, biochemistry, other ancillary services and a psychiatrist, complete with diploma, to study the patient's mind. What did the *Autocrat of the Breakfast-Table* say? Who wants to hear fanciful people's nonsense?"

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Doctors' Dilemmas

> But at least, they hear the things I hear
> And see the things I see
> And whatever I think of them and their likes
> They think the likes of me.
>
> RUDYARD KIPLING.

1 IDLE WORDS

ONE might think that the doctor with his manifold responsibilities would weigh every one of his words to the last scruple. Yet the profession as a whole utters many idle words which come up for judgment in unexpected ways.

The consultant, of course, develops the art of giving a carefully considered opinion on all occasions, but the family doctor does not have the same chance of speaking to a definite audience at a set time. In the course of his busy round he may get into the habit of using words the literal significance of which may escape him. Here is a story which comes direct from the doctor concerned. A young woman, who was a faithful patient of his practice, got married. All in good time she booked a monthly nurse for an event some six or seven months ahead. The nurse asked if the doctor had been informed, but it seemed the lady was a little diffident about this. She was fond of the doctor and anxious that he should attend, but was most emphatic that it was not possible to ask him to call to fix up the date—no not for this, because it was her doctor's custom to come into the room and say "Well! What have you been doing?" So they solved the problem by writing him a note.

Some people are shrewd enough to recognise the fact that a doctor may sometimes make statements which need not be regarded seriously. Years ago I was staying in a house where a healthy old lady of about seventy years of age was in the habit of being visited occasionally by a physician, who had a particularly attractive personality and who was a very good doctor as well. One day she was telling me that he had been to see her, she mentioned

two or three things which he had advised and then added, "Poor man, he must say something."

I have one loquacious friend who has held a large practice together for about forty years. After taking care of one of his patients in a nursing home I said I would write to the doctor. To this the patient, who was a farmer, responded, "It does not do to take too much notice of what Doctor says." He meant no disrespect but I quite understood.

There is some truth in H. G. Wells' division of doctors into two categories. The one who says you are seriously ill and that it is fortunate that you have called him in to bring about a cure, and the other who assures you there is nothing to bother about, saying you are all right until one day you are dead. We had in this district a doctor who belonged to the first of these divisions. It was his habit to say, after seeing his patient, "It's a good thing you sent for me." One day he was called to the vicarage, where he stood rather helplessly by the side of a cot until a small child came round from a convulsion, at which time he uttered his stock phrase. The Vicar's wife responded, "Oh, doctor! what have you done?"

There are family doctors who have developed a technique of talking as a sort of protective mechanism. I have met one who talks as he comes into the house and during most of the visit, finally chiming the last word as he leaves the door-step. He allows a consultant a brief interval in which he may give his opinion, but I think the doctor's method is adopted with a view to avoiding awkward questions. These are in order during a consultation of two doctors, but in a general practice there are days when it is in the best interests of everyone—patient, relatives and doctor—that nothing very definite shall be discussed. It is possible for a doctor to achieve this with a reserved manner and few words, but it may be easier to succeed in this endeavour if he monopolises the conversation. In one way these are not idle words but they may become such by force of habit.

I once went fifteen miles to see a patient in consultation and only spoke one sentence to a woman who was seriously ill. The doctor talked all the time in the bedroom, dominating the situation, without saying much to the point. When he stopped to

get his breath, I told the patient that I could do more for her if she came into hospital, to which she consented with a nod and the consultation was closed. I am not excusing this doctor's flow of words as being in the nature of a foible. It is sufficient to say that he soon left the district.

Of course a few judicious words, just to make someone feel at ease, may be useful but are not always devoid of risk. When a very distinguished patient, in his own bed, was having his chest X-rayed in 1928 the radiologist with his best bedside manner said that the portable apparatus was one which had been used in France for military casualties in the first World War The distinguished patient remarked 'Oh! haven t you got anything more up-to-date than that?

I was once called in consultation to an elderly man who dwelled in a caravan. I was told they were prosperous people. The patient was showing signs of heart failure. I opened up the conversation with the suggestion that he had done some good hard work in his time which many people receive as a compliment but our patient, somewhat indignant, responded 'Work!—Me!—never did a day s work in my life."

Of course in these rather trivial stories I am far from suggesting that the doctor s thoughts are idle I have only been hinting that some of his words may return in unexpected ways. There is, moreover need to watch that someone does not take advantage of the fact that he is deeply concerned with one condition, to put a question about something else. Perhaps an ill-considered answer may have serious consequences.

During physical examination, particularly of the abdomen, we need our patient to be relaxed. Often enough it requires considerable art to bring this about. To ask a patient to stop talking may be reasonable during auscultation of the heart, but true relaxation of the body as a whole is obtained best by means of a quiet manner and a few well-chosen words that will hold the attention without producing excitement. With an adult some routine technique may succeed, but with a child it must be the inspiration of the moment. The doctor must know how to talk a little without saying anything of particular significance

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a child, nine months old, with congenital heart disease. It was well-developed with a healthy colour but there was no doubt about a bruit which indicated an incomplete ventricular septum. The condition had not been recognised in hospital where the child was born, but had recently been detected at a Welfare Clinic. The mother was still very upset because the doctor had put the question, "Does he go blue?" She was looking out for this alarming occurrence. I think the words were ill-chosen and liable to produce a misconception. I suppose every one of us makes the mistake, sometime or another of putting a question better left unasked.

There is one for which I have a particular distaste, but have heard it put by a good consulting physician. I may be quite wrong, but when there is some tumour which might be a hydatid cyst, is it worth while to ask a man whether he keeps a dog?

Apart from stock phrases and idle words, I have thought sometimes that our traditional expressions may be ill-considered. Of those conditions with which the family doctor has to deal, a confinement is the one above all which he hopes, for everybody's sake, will be free from mishap or criticism. I would suggest that the expression that a piece of placenta has been "left behind" is unwise and unjust to the situation. It is more judicious to speak of a piece which has "not separated."

There is a type of consultant who inclines to make the statement to the relatives that it is too late for him to do anything. The words may be literally true, but sometimes the nature of the disease has been such that, at no time during which the patient has been under medical observation, has there been an opportunity to influence the condition, in which case the words "too late" may give a false impression.

It is true enough that we get credit for many things over which we exercise little influence and we must be prepared to take blame by way of levelling up for something which is not our fault. There is a great deal in the choice of words, however. It is unfortunate for a doctor to receive censure, but on the whole I think it tends to have a worse reaction on the life and outlook of those who blame him. It is to some extent a temperamental question. Those who will readily give adverse criticism are likely

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and I may say incidentally that when the time comes that they do not grudge his well-earned rest, it means that he is a good doctor and has arrived—or at any rate is travelling the right road.

If history will one day speak of those queer rather commercial fellows who bought and sold patients, I should like to put in a word for them to prove that they gave a good service.

We believed that a wise man ought to know who was his own doctor. As a rule women were even more loyal. If they had children they had more opportunities of judging. Around this loyalty to the doctor grew up medical etiquette. It was not always easy to let our patients understand that this was for their own protection. They would think sometimes that the profession discouraged promiscuous changing of the doctor in the interests of the medical men themselves, whereas we believed in free choice by all means, but not in haphazard changing which militated against good service.

This brings us to the doctor who started as a squatter—to use that most unfortunate word for the one who just puts up a plate. In certain circumstances this may fill a need. There are no laws for or against, nor does it touch medical ethics but it is usually contrary to the spirit in which wise people have wisely chosen their medical adviser—which custom is the foundation of a sound general practice. As a matter of history in this locality those who have put up a plate where there has been need for a doctor have succeeded, but in other areas the good men have soon joined a busy practitioner—which means there has been purchase—and the more indifferent have removed their plate and gone. Neither a good doctor nor a bad one, squatting, can live on air and self-advertisement is not cheap at any rate financially

Looking back, reflecting on this question as to whose patients were they reminds me that a friend of mine, soon after becoming a junior partner was called in to the child of a distinguished lady who was a stranger to the practice. There was no ethical difficulty The lady had notified her former doctor that she proposed to make a change, and one which was not related to the present illness. After about fourteen days, when my friend was saying good-bye on the doorstep because recovery was complete, the lady told him not to consider himself her doctor Although he

to have much unhappiness in life but often enough the trouble begins with some verbal misconception. To avoid this is not just a matter of self-interest for the medical man. It is important for his patients.

George du Maurier in late-Victorian times, drew pictures in *Punch* entitled "Things One Says Without Thinking" A medical man must be sufficient of a psychologist to recognise such remarks when made to him. A harassed woman once said to a friend of mine, "We've had nothing but trouble since you came into the house." The doctor must not let such statements—to use the words of Sir Thomas Browne—stretch his *pia mater*

(2) Whose Patients are they?

In the year 1944, when the British Institute of Public Opinion sent a questionary to the members of the medical profession, it was rather surprising to find that no group of doctors showed a majority who approved of the principle that general practices should be sold or purchased.

We know that a change of view came subsequently, but I believe the first opinion did credit to the altruistic traditions of the profession because in cold print this buying and selling does seem rather commercial. Moreover, perhaps, it had become too much of a good thing and therefore required checking When it became an established custom that a young doctor, without any capital or savings, could borrow from an insurance company the position of the vendor was strengthened at the expense of the buyer I believe I voted that the custom should be abolished. It is possible, however to argue that for the patients in general it was a good system.

I have lived long enough in one district to be able to say that I have seen at least a hundred thousand patients sold and bought—certainly no less. When one comes to think of it what better chance will a family have, that they can rely upon a faithful family doctor, than the guarantee that he paid for the opportunity of looking after them. In most cases he stays in the district progressing in character and experience. If he does not hold the practice he bought there is no one injured but himself. When he goes for a holiday he must find someone to look after his patients

To enter a practice is an adventure which brings no great surprises, though there may be strain and anxiety about the future. But quite a number of successful doctors have failed to foresee the philosophy of selling. In those happy days of horse-drawn traffic, it was said that the carriage kept the doctor and when advancing years drove him from the open dog-cart to the closed brougham, some people said it was the first nail in his coffin. If a man over fifty years of age takes a junior partner with a view to succession, he must be prepared for something more or less like a nail in the coffin of his reputation. Always in former times he was missed when he went upon his holiday but now the most loyal junior is compelled to be something more adequate than a stop-gap.

Forty years ago this was my lot. A patient would say "Has the doctor gone away?" When I answered in the affirmative there would come the response, "Not for long, I hope." What could I say but that I was afraid the patient would be quite well again before the doctor returned?

Family practice is an individualistic calling. Not to be missed by the patients is the beginning of the end. A wise and loyal junior will keep the practice focused at the original house, with the senior interested, but by the time messages come through asking that "one of you" will call, it is the end of the beginning for the junior and he will do better when his senior leaves. Dual responsibility may foster indecision, but in any event, if the medical facts are agreed upon, no two doctors express their personality in the same way

The Englishman is generous to the visiting team when he knows their worth. He wishes to see a Bradman make a hundred or a Bobby Jones break the record of the course, but essentially he does not believe in those unknown. In Lancashire, a most hospitable county they used to tell a story of this simple conversation. First Native "Who's that?" Second Native: "Stranger" First Native: "Throw half a brick at his head." When we hear somebody remark "My doctor tells me," we instinctively think that the doctor is probably a very ordinary fellow but we should respect the spirit which illustrates the importance of claiming a particular medical adviser as one's own. Buying and selling

was a little startled, he really thought it very reasonable, so he cheerfully agreed on the understanding that she did not consider herself his patient He attended, off and on herself and the family both before and after return from the first World War At the end of about twenty-five years he asked, one day if he was still on appro " The story has point if it be accepted as a tribute to mutual loyalty of patient and doctor

Our generation believed that the patient should have a free choice of the doctor and perhaps even more important that the doctor himself should be free to choose but we considered chopping and changing detrimental to good doctoring.

I can think of one colleague who was an artist as a stop-gap He knew who were his own patients and, if he saw one of mine in my absence, he had an exceptional gift for doing the right thing without disturbing the accepted doctor-patient relationship His example was instructive his art worth cultivating, because it was both generous and good for the medical service in general.

I am suggesting that it is good for the community to show loyalty to some particular doctor I would emphasise this aspect of the purchase of a practice but of course a particular layman may believe that he himself could never be so transferred. I was sitting once outside the club-house of a golf course when a business man, in reference to a newly arrived young doctor holing out on the last green, explained to me that when his own doctor retired no new doctor would purchase him. Fifteen years later it was an accomplished transaction and my golfing friend, on both occasions was in the hands of a good doctor

Perhaps when the questionary came from the B.I.P.O., doctors felt that it did seem undignified to sell a rich colliery owner just like a truck of coal, or buy a tape manufacturer as it might be by the yard. Nevertheless, with that happy English knack of custom being wiser than theory I have seen these transactions go through with mutual respect and benefit.

Before the days of the National Health Insurance Act, I think there were fewer partnerships, except in the temporary sense of a three or five years' introduction to the practice. In some ways these old individual practices kept the doctor-patient relationship all the closer

To enter a practice is an adventure which brings no great surprises, though there may be strain and anxiety about the future. But quite a number of successful doctors have failed to foresee the philosophy of selling. In those happy days of horse-drawn traffic, it was said that the carriage kept the doctor and when advancing years drove him from the open dog-cart to the closed brougham, some people said it was the first nail in his coffin. If a man over fifty years of age takes a junior partner with a view to succession, he must be prepared for something more or less like a nail in the coffin of his reputation. Always in former times he was missed when he went upon his holiday but now the most loyal junior is compelled to be something more adequate than a stop-gap.

Forty years ago this was my lot. A patient would say "Has the doctor gone away?" When I answered in the affirmative there would come the response, "Not for long, I hope." What could I say but that I was afraid the patient would be quite well again before the doctor returned!

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practices—which essentially means patients—sounds almost like slavery It is quite possible, however, that neither patients nor doctors will have the same freedom if the purchasing of practices ceases.

In thirty-seven years experience of visiting medical wards in more than one hospital, I have seen some changes in the question as to whether the patients were my personal responsibility In the earlier years there was no doubt about it—nor has there ever been in a voluntary hospital. But even here there has been a tendency to change which requires consideration. When a diagnosis was based almost entirely upon the history and physical signs, one examined the new admissions soon after arrival and in this way was quickly in touch with the whole case, both physical and mental. As time progressed, and methods of investigation multiplied, there was a temptation to neglect a patient until the relevant evidence was available. Perhaps he or she scarcely realised who was in charge. This was bad for the patient and worse for the visiting physician. It is an error which may be in evidence in a diagnostic clinic. I am convinced that patients newly admitted should be seen by the physician reasonably soon, so that they may know under whose care they have been placed. In modern medicine we are driven into making some investigations which may raise the consciousness of some particular part of the system. A hospital patient should be in touch with the medical mind responsible for assessing the whole case, at the first possible moment. In hospital, as in private, they should know whose patients they are.

In municipal hospital work I have enjoyed visiting the wards when the patients were not definitely allotted to my personal care. I do not wish to discuss in detail how much this seemed to limit the scope of the work, but when they are officially placed under the physician, the ward lights up on his arrival. The Sister of the ward becomes his trusted colleague and the patient is not distressed by the dilemma of not knowing to whom he may put his questions.

There is experience to be gained in personal relationship if one acts as doctor to the nursing staff of a hospital. One may assume that each individual nurse is prepared to accept the situation but

there is added responsibility because she had little freedom of choice. With all the facilities of a hospital available, the doctoring is less responsible than in private practice, but in some decisions tactful understanding is required, by reason of the fact that the patient was not completely free to choose her medical adviser

During the years in which I have practised our patients have known to whom they are entitled to look for immediate medical service. In Kipling's address, "A Doctor's Work," given to the Middlesex Hospital in 1908 he said. "Nobody will care whether you are in your bed, or in your bath, or in the theatre. If any one of the children of men has pain or hurt in him you will be summoned, and, as you know what little vitality you may have accumulated in your leisure will be dragged out of you again." To accept that spirit for a general practice may have made it more worth-while. If the sale and purchase of general practices be abolished, will the profession expect to give a service less personal? And will a particular individual sometimes ask the question—Whose patient am I?

There may have been some sections of the community or some districts which our medical service has not reached, but for the bulk of the population I am prepared to argue that the buying and selling of general practices has been a satisfactory solution of obtaining a loyal personal service for the average family or individual.

If the politician and reformer have decided upon some sweeping changes in the medical service of the country it would seem to be inevitable that young men must enter practice without purchase. I have attempted to illustrate the service as I knew it. If the new service shows shortcomings in some directions, as well it may I only wish to state that it must not be claimed as a set-off, that the public have been saved from the indignity of being bought and sold like chattels, because for those members of the community whom it concerned the results were excellent.

(3) WHEN TO BE HARD OF BELIEF

In Mark Twain's account of his adventurous ascent of the Riffelberg he discussed the value of his barometer but concluded, "I did not wish to know when the weather was going to be good

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When young women suffered from chlorosis there was therapeutic value in "Pink Pills for Pale People"—although the dose of iron would not be adequate for the hypochromic anaemia more common in these days. Our patients, however believed in the virtue of colour Red wine was supposed to regenerate the blood in convalescence. Red flannel was in vogue as a protection for "weak chests" and, of this material, some women found virtue in garments the mention of which would have brought a crimson colour to the cheeks.

Possibly the therapeutic value of red colouring was based on the old tradition that red garments and red curtains for the room were the recognized treatment for smallpox. John of Gaddesden, who had studied at Montpellier and had a busy London practice at the beginning of the fourteenth century believed in this treatment which outlived him by several hundred years. Furthermore, we may read in Dr. Guthrie's *History of Medicine* that Andrew Boorde, physician to Henry the Eighth, advised people, as a health measure, "to keep their bedroom windows closed, to sleep on the right side with the head high and to wear a scarlet night-cap."

Quite apart from colour however many people had faith in "chest protectors." They had stood the test of time—perhaps in wash-leather or sometimes as a starched linen dickey These were in use when I entered practice. And there still remained a few patriarchs with long flowing beards, which had been prescribed by a Victorian doctor to keep the wind-pipe warm, as in the case of Mr Septimus Small in *Aunt July's Courtship* the scene of which Galsworthy dated 1855.

In the eighteen-nineties anaemic-looking youths would walk through foggy streets wearing a black pad, called a "respirator" over the mouth, to keep out the cold air No doubt the successful efforts of the rhinologist to improve the air passage through the nose did much to discourage doctors from prescribing these.

And in the twentieth century led by the girls, youth so cultivated a ruder type of health, with no respect for respirators or chest protectors—nor for beards which eventually were held in such little esteem that they were counted, sometimes, as trophies in a game called Beaver

what I wanted to know was when it was going to be bad, and this I could find out from Harris's corns." I have a medical friend who assures me that his wife has a corn which is quite reliable in this direction

Now the medical profession, amongst themselves, know the importance of exercising a wise scepticism about the significance of subjective symptoms and about both causation and treatment of disease. But the family doctor ploughing his lonely furrow, may find it difficult to know what to believe. One elderly doctor, wise in his generation used to say "Never disagree with your patient." This is reasonable, if it means that argument or dispute should be avoided, but some doctors listen to fads and fancies until their credulity is imposed upon by repetition

It must, I think be true that many forms of joint trouble and fibrositis tend to be worse in bad weather but the temptation of the family doctor is to acknowledge some cause of a particular complaint when in reality he is ignorant of the aetiology It is so reasonable for his patients to ask how they may avoid the trouble. We may take pride that we know the cause of typhoid fever or of tetanus and are able to explain how the infection enters the system but in the daily round we meet some difficult conundrums which are of more everyday interest to our patients.

When I commenced practising many people believed that haemorrhoids developed after sitting on a cold stone, that sciatica might be due to a draughty water-closet, that hip disease resulted from lying on damp grass or that jaundice was the result of a chill. I am not in a position to say as to whether these aetiological fancies came from the experiences of individual patients or from medical men who had gratified the natural craving for some answer to a reasonable question. It is one of those insoluble problems in origin comparable to that of the owl and the egg But some of it came from the doctor There was a boy in my dormitory at school who wore a Jaeger abdominal belt, prescribed medically to prevent the recurrence of jaundice If I say we called it his guitar case it is possible to recognise a rather feeble play on words. Our modern conception of infective hepatitis would discard an abdominal belt as a prophylactic measure, but it is not yet proved that one attack of the infection protects for the future.

the artisan would run about the streets in winter just after the fever of measles had subsided, and notices from the public health office, posted as a warning, proved a valuable aid. At one time it was the custom to take children with whooping-cough, in all weathers, for a walk round the local gas works. I am unable to say by whom this was first prescribed, but I soon learned that exposure to wet or cold for these children was a cause of bronchitis or broncho-pneumonia, which frequently led to chronic lung disease.

In late Victorian days I heard a woman say that if she called the doctor in "he made a case of it." No doubt he believed that she expected some little display of that nature, and, equally probable, he felt he would be blamed by the neighbours, if some indisposition turned into a "case," when he had not undertaken to visit again. In Edwardian times some of the medical ritual was being relaxed and then the first World War, with doctoring "cut to the bone," freed the medical adviser from considering many details which his seniors were expected to take seriously Equipped with more knowledge and with ancillary services, he could afford to shape his beliefs according to his own experience and there was less risk of falling into the errors of some popular fallacies.

For some time, perhaps, he did not listen carefully enough to what his patients had to say and teachers of medicine had to remind the profession that they should ask the opinion of a sick person as to what might have brought on the complaint.

Some patients, particularly the elderly may have wise conceptions. One old lady used to tell me that her "heart cough" had developed. I believe it was the earliest indication of some pulmonary oedema.

How often, with a cardiovascular system which did not respond well to exertion in those who were tired, have I been told that the day began badly but that later on there was improvement. This is in contrast to the story of definite heart disease. It is, of course, in no way related to a "hang-over" and I am not discussing those who take hypnotics. I should conclude that a tired circulatory system (shall we call it neurocirculatory asthenia) gets a rest in the prone position during the night, that it remains

A fellow student of mine once said that he wished a family doctor would write a book which explained the difference between fried and steamed fish as fare in the sick-room, and all that kind of lore. We could see his point. We had spent several years studying disease and studying patients as individuals, but there was a big gap between our knowledge and what we had heard from the doctor in our own homes when some member of the family was ill.

Perhaps one of our teachers would have told us that a mother would expect us to know how many teeth a baby should have at ten months old. (There were no pediatricians in those days and we should have been too discreet to ask him to tell us.) We may have been instructed as to the right temperature of a room, or obtained some hint about a suitable climate for an invalid, but we wanted facts from the family doctor, who had always seemed to us so confident and full of knowledge.

Brought up in spacious Victorian days with a mother, a nannie and a cook, we knew that illness began with arrowroot and milk and rusk, progressed to chicken broth, followed by milk pudding, next came steamed fish and finally a mutton chop by which time a boy might reasonably expect to get into his trousers and to mischief. But we wished to read of these rules in print.

And yet, I think, when we went into practice, we soon discovered that we must guard ourselves from accepting household medical rules as if they had real scientific foundation. To some extent they were sound in origin but much of the ritual could be curtailed.

Like other people, I think we found it best to cut our coat according to our cloth. When it was possible to plan a convalescence carefully graded, the mother would usually make most of the suggestions, but in other homes no great harm would come from relaxation of the routine in many ways. In my practice I soon learned, however that after an evening rise of temperature it was essential to have the next day in bed, that it was all experience and also good discipline for a child to learn to stay there that following an attack of diarrhoea suitable foods must be prescribed for a few days, and that both measles and whooping-cough must be treated with respect. I can remember a time when the child of

in the vulgar tongue would increase both real and imaginary disease. He was referring to serious works directed to the medical profession. What would he think about some of the Health propaganda which comes from the platform or the Press in this twentieth century?

My generation has been practising amongst a disease-conscious people. The recruits for the 1914 war, for example, gave their medical history in a simple manner, but some of the 1939 recruits were prepared to begin at the beginning—as it might be with the statement that they "cut their teeth with the bronchitis." Recently a young soldier in the wards told me that he had pneumonia when two years of age. If he had been a chronic bronchitic this might have been reasonable, but in a young man with no evidence of any chronic disease it is nonsense.

Perhaps this kind of thing is partly attributable to school medical examinations. In some clinics the presence of a family doctor might be a valuable corrective. In the introduction to *Science and Health or a Key to the Scriptures*, attributed to Mary Baker Eddy, we may read the words "Doctors increase diseases by talking about them."

Amongst ourselves we sometimes hear the criticism that clinicians think too much about disease and not enough about physical fitness, but I think most family doctors carry a good deal of wise advice on their daily rounds, but believe that it can only be prescribed individually and not in the lump.

During the last forty years there have been great changes in the amount, and in the kind, of medical and quasi-medical knowledge which reaches the layman. When I first went into practice there were a few odd books about read by odd people. One might call at a house where some crank of a father was studying a volume called *The Family Physician*. It was just as well to know what he and the book made out together about the illness in question, but it did not increase disease.

I am not very experienced about the Health Week or health lectures or about newspaper medicine, but for a variety of reasons they fail to achieve their object. Largely perhaps because they reach those who are already too conscious of themselves. I am ashamed to say that I never heard Miss Marie Lloyd sing, "A

relaxed on rising, but eventually becomes keyed-up to more exertion as the day progresses. A somewhat fanciful suggestion but if you exclude excess of tobacco and other detrimental habits, my idea makes a reasonable working hypothesis, because not to be in good form in the morning may be an early indication that health is deteriorating and that life requires reorganizing

What shall we believe about some of the fancy diets which our patients assure us are beneficial? First I think that, in many cases, these people are less strict than they would lead us to suppose. And secondly, apart from cranks and faddists, there is a type of man who fusses about his health and his affairs, wondering how some particular dish will suit his digestion, till he makes that system self-conscious, in which event, if he decides upon some special food (no more digestible in reality) his consciousness of choice cancels out the self-conscious stomach and there is peace. But, often enough, we find in a year or two that it is some other regime which suits him.

One can remember elderly doctors who thought and spoke very largely in the language of their patients. They had picked it up as they might a local dialect. It seemed old-fashioned and unscientific but the spirit might be correct. When Chesterton's *Father Brown* explained the secret of his success in detective efforts, he pointed out that he did not study the criminal from outside but tried to think his thoughts and get inside him. These doctors had got inside their patients. True psychologists, who could have said with Kipling— "The lives ye led were mine."

Gradually times changed and we found that our patients talked to us in quasi-medical language. To obtain a correct history there was need to make them speak in simpler terms—to speak of symptoms and not of diagnosis. Of some of what we hear we must be hard of belief, but a doctor learns a good deal by listening to wise patients although having obtained a thought, he should absorb it in a form translated into medical terms which he can make intelligible to his colleagues.

(4) The Platform and the Press

It was Nicholas Tulp some time about the middle of the seventeenth century who said that the writing of medical books

the daily Press. It would be a delicate undertaking to discuss this in detail and one might get into deep waters, but with newspapers and drug firms taking an interest in scientific medical publications the waters are deeper than they were thirty or forty years ago.

When Blériot flew across the English Channel in 1909 Lord Northcliffe's famous head-line may have been justified "England no longer an Island." But many head-lines miss the mark, although they may suggest something sensational. That is just the trouble with medical head-lines. They tend to destroy all sense of proportion, so that family doctors and other clinicians may find it necessary to correct some erroneous conceptions.

Quite apart from these considerations, however we must realise that some light or humorous allusion, which would drive home a lesson to a medical audience, may be quite unsuitable for the daily Press or the head-line.

As long ago as 1905 history was made in this connection. There was something in the papers about "Too Old at Forty Some American doctor it seemed, had been giving his opinion, and sober citizens were up in arms, writing to the papers to explain how many men had done valuable work at a more advanced age. The lay public did not understand the situation. But the truth is very simple. The greatest physician of the time was leaving the Johns Hopkins University so that he might have a life less strenuous at Oxford. In a particularly graceful and witty valedictory address he made his excuses about his own age, and referred to Trollope's fanciful suggestion about chloroform at sixty Everything he said went direct to the hearts of his hearers as being in good taste with apt illustration and fitness for the occasion. But the newspapers of two continents ran it as a stunt, with head-lines such as "Osler Recommends Chloroform at Sixty" It should be a classic warning.

It is possible, with a medical audience, to drive home some point about the progress of medical science with a jocular suggestion that some members of the profession will have less work to do or gain smaller financial rewards. But this is not suitable for the head-line in the newspapers, of which there was one recently in relation to penicillin. In 1903 a fellow resident and I were

little of what you Fancy does you Good" but the sentiment is one which might be quite beneficial to those who attend health lectures. In more recent years the cry has been for positive health but this should be prescribed in moderation and one must not seek health too assiduously The old doctor in Stevenson's story *The Treasure of Franchard*, has the right idea, in "Hygiea and moderation let these be your watch-words in life."

No one could decry the obvious laws of hygiene. And Samuel Butler, in *Erewhon*, taught a valuable doctrine, that to be ill was an offence to be punished. Good health is of paramount importance. It is reasonable that the public should seek advice as to how good health may be achieved. A good doctor, often enough, has to prescribe a well-balanced life and this is not easy from the platform. One would not presume to preach, but it is possible that the present need is for the development of good character Family doctors during my time have known that the right character and good health are bound together although we know well enough that the *Erewhon* philosophy cannot be carried to its logical conclusion, because most of our patients who are seriously ill are the victims of misfortune.

About thirty-six years ago the account of a health lecture appeared in the local paper It contained a statement that as much nourishment was present in a herring as in two mutton chops. If it was true then, I suppose it is true to-day At the time I wondered how the doctor knew In any event it would seem to be a statement both cheering and safe. Of more recent lectures, one has gained the impression that they contain much more exciting food for the mind about microbes and toxins and such small goblins.

To advertise prophylactic immunisation against those diseases for which we have a satisfactory method is sound enough, but the lecturer who gets a head-line in the Press, 'How to avoid influenza, should, if he falls a victim himself, be sent to *Erewhon* to receive some kind of correction.

I have not studied newspaper medicine in detail and no doubt many of the articles are quite reasonable, but perhaps these really need a medical training to make them intelligible. It is only in recent years that we find extracts from the medical journals in

the daily Press. It would be a delicate undertaking to discuss this in detail and one might get into deep waters, but with newspapers and drug firms taking an interest in scientific medical publications the waters are deeper than they were thirty or forty years ago.

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talking to a generous business man, and were rather startled when he said that a man entered a profession or business to make as much money as he could. We had reached the mature age of twenty-five or so with our ambitions still intact to do a good job of work and progress in our calling without much consideration of financial gain. Of course I know that Rudyard Kipling in his address on the *Values of Life*, given to the McGill University in 1907, said "If more wealth be necessary to you, for purposes not your own use your left hand to acquire it, but keep your right for your proper work in life.' He could understand a harmless joke about a new discovery which would benefit mankind being unfortunate for some individuals in our profession but we should not extend this compliment to the average reader of the daily Press.

Perhaps Nicholas Tulp did not mean us to take too seriously his idea that there was danger in substituting the vulgar tongue for Latin. But in Withington s *Medical History* we may read an account by Tulp of how a patient with a fractured fibula got hold of the works of Ambrose Paré, in which he read up the complications of a fracture of the femur and became so alarmed that he went out of his mind.

The story does point the moral that some books are only suitable for scholars who can understand them. It is easy to say that, scholar or no the patient should have called in his family doctor And this brings us back to the question of medical advice from the platform, which goes over the head of the family adviser direct to the public. A few years ago two maiden ladies called on a physician to ask him if they were already suffering from cancer They had begun to eat large quantities of carrot to prevent this misfortune, but as they had only learned this important fact quite recently at a health lecture, it was reasonable that they should seek advice as to whether their knowledge had been acquired too late

I would not presume to advise anyone about the responsibilities of giving medical advice from the platform or in the Press but I would warn them against the temptation which prompted the Fat Boy in *Pickwick* down at Dingley Dell, to shout into the deaf old lady s ear trumpet· I wants to make your flesh creep."

(5) Ought we to smoke Tobacco?

When R. L. Stevenson advised young women against marrying a man who did not smoke, he added the words, "whatever makes for lounging and contentment makes just as surely for domestic happiness." But then, of course, in 1881 the girls themselves were not allowed to smoke, so that the better half of to-day's conundrum was outside his province. And, moreover in his day the cigarette habit had not developed—a smoke to which one does not settle down.

It would be easy to preach a sermon on the evils of "lounging and contentment," but these traits, to live with, may be classed as virtues when contrasted with restlessness and discontent.

Instinctively I feel that tobacco is a poison, but in spite of the fact that I have been qualified for over forty years and have smoked a pipe for fifty I have no scientific evidence to offer with regard to moderate smoking.

Without entering into the various well-known clinical possibilities may I submit this letter written in 1943

To the Editor of the *Gazette*

Sir—I have been reading Dr T L Hardy's scientific and instructive article on the "Clinical Aspects of Tobacco Smoking" in the Guy's Gazette for April.

I have carried my mind back forty years to the time when I was medical registrar at Guy's and students sometimes consulted me about tobacco in relation to themselves. Perhaps the advice was sought as coming from one who made his fair share of runs and scored a few goals, rather than from respect for medical knowledge.

I am not concerned with juvenile smoking—which is schoolboy swank—but with the problem of tobacco-smoking for the student who has reached those years when he has the responsibility of forming his own habits.

Forty years ago I held the following maxims

1 Don't get a fixed tobacco habit too early in life.
2. Ration smoking and don't smoke till after tea-time.

talking to a generous business man, and were rather startled when he said that a man entered a profession or business to make as much money as he could. We had reached the mature age of twenty-five or so with our ambitions still intact to do a good job of work and progress in our calling without much consideration of financial gain. Of course I know that Rudyard Kipling in his address on the *Values of Life* given to the McGill University in 1907, said "If more wealth be necessary to you, for purposes not your own use your left hand to acquire it, but keep your right for your proper work in life.' He could understand a harmless joke about a new discovery which would benefit mankind being unfortunate for some individuals in our profession but we should not extend this compliment to the average reader of the daily Press.

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I would not presume to advise anyone about the responsibilities of giving medical advice from the platform or in the Press but I would warn them against the temptation which prompted the Fat Boy in *Pickwick*, down at Dingley Dell to shout into the deaf old lady's ear trumpet "I wants to make your flesh creep."

(5) Ought we to smoke Tobacco?

When R. L. Stevenson advised young women against marrying a man who did not smoke, he added the words, "whatever makes for lounging and contentment makes just as surely for domestic happiness." But then, of course, in 1881 the girls themselves were not allowed to smoke, so that the better half of today's conundrum was outside his province. And, moreover in his day the cigarette habit had not developed—a smoke to which one does not settle down.

It would be easy to preach a sermon on the evils of "lounging and contentment," but these traits, to live with, may be classed as virtues when contrasted with restlessness and discontent.

Instinctively I feel that tobacco is a poison, but in spite of the fact that I have been qualified for over forty years and have smoked a pipe for fifty I have no scientific evidence to offer with regard to moderate smoking

Without entering into the various well-known clinical possibilities may I submit this letter written in 1943

To the Editor of the Gazette

Sir—I have been reading Dr. T L. Hardy's scientific and instructive article on the "Clinical Aspects of Tobacco Smoking" in the Guy's Gazette for April.

I have carried my mind back forty years to the time when I was medical registrar at Guy's and students sometimes consulted me about tobacco in relation to themselves. Perhaps the advice was sought as coming from one who made his fair share of runs and scored a few goals, rather than from respect for medical knowledge.

I am not concerned with juvenile smoking—which is schoolboy swank—but with the problem of tobacco-smoking for the student who has reached those years when he has the responsibility of forming his own habits.

Forty years ago I held the following maxims

1. Don't get a fixed tobacco habit too early in life.
2. Ration smoking and don't smoke till after tea-time.

talking to a generous business man and were rather startled when he said that a man entered a profession or business to make as much money as he could. We had reached the mature age of twenty-five or so with our ambitions still intact to do a good job of work and progress in our calling without much consideration of financial gain. Of course I know that Rudyard Kipling *in his address on the Values of Life, given to the McGill University* in 1907 said "If more wealth be necessary to you, for purposes not your own use your left hand to acquire it, but keep your right for your proper work in life.' He could understand a harmless joke about a new discovery which would benefit mankind being unfortunate for some individuals in our profession but we should not extend this compliment to the average reader of the daily Press

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problem so difficult. If I were called in, however to advise a present-day student about tobacco-smoking I should say "If you do get the habit, and it is going to stay with you for the remainder of your days, the pipe is the safest smoke."

(6) Relations with the Quack or the Healer

There are some of life s little ironies which may be summed up in a joke or a fable. As a case in point there is the old woman in Punch who says to her husband—"You take what the doctor gives you and I will dose you with this medicine of mine and we will see who gets you well quickest." The situation is clear The patient is progressing all too slowly Perhaps the doctor has changed his medicine too often. When recovery comes after taking Swamp Root, or whatever it may be, the evidence to her who gave it is overwhelming. Great is the reputation of the woman friend who recommended it.

An old man told me the story that, fifty years ago, one of his children was very ill with bronchitis and pneumonia. The doctor stated that the child would not recover. When a friend of the family who was a homoeopathic chemist, called to enquire and heard the news, he prescribed a powder without the doctor s knowledge. It is an old adage—never despair of a sick child—but on this occasion the homoeopath failed to increase his reputation because the doctor s prognosis was correct.

Every family doctor has been told of some patient of his who has been cured with slippery elm or been rejuvenated by taking phylloxin. It is part of the daily round.

Soon after I started in a family practice, I had under my care an elderly man, of some importance, who suffered from osteo-arthritis of the hip-joint. He would come to see me, walking with difficulty and with the aid of a stick. Somewhat to my chagrin I heard, when he ceased to attend, that he was being cured by someone without any medical qualifications. But the next time I saw him in the street he was walking with two sticks and he returned eventually to orthodox medical advice.

It is also quite common for the doctor to hear that someone with a sprain has had five shillings worth from a bone-setter who

3 Don t smoke at work, except perhaps one pipe to settle down to reading at night.

4. Limit the usual ration if you are getting less fresh air and exercise, although you may find the temptation is the other way

5 It is easier to ration a pipe than cigarettes.

This brings me to my present views and conclusions, in which there is nothing to change in the above suggestions but these to add

6. Many wise men don t smoke at all. I never noticed that they miss anything, unless, perhaps, towards later middle-age and onwards they tend to neglect the benefits of the armchair

7 The cigar is strong and, if worth smoking is scarcely worth the money As a regular smoke it does not suit the young athlete. It is a restful and rationable smoke for elderly men. If the teeth won t hold a pipe, and the funds will run to it, cigars may be smoked, in the spirit of Father William s back-somersaults, in the later years of life.

8 The cigarette is the great danger The habit is acquirable young and much more quickly than the pipe habit. It is a short smoke and, like a short drink, gets handed out when a man never meant to have one. It is an unrestful smoke, and becomes an urgent need of the moment, whereas the pipe or cigar is worth waiting for until a rest may be achieved. For a variety of reasons the cigarette is extremely difficult to ration. Perhaps eight or ten cigarettes a day may be the cleanest smoke but few people keep to this over a period of years

9 It is comparatively easy to ration pipe smoking It fits with time and place. The exceptionally tough guy who smokes a pipe on a round of golf is comparatively rare, and the average pipe smoker keeps it for a rest after tea in the club-house.

10. The pipe smoker lets himself become decarbonised when he is ill. The cigarette addict will smoke when his temperature is raised, and too early in convalescence.

11 There are exceptional men to whom no rules apply Although this is not true of the abuse of alcohol, which always brings some penalty There are wise men who never smoke tobacco It seems rather presumptuous to express one s views on a

If we are consulted beforehand about some form of treatment, each case may be discussed on its merits. If we meet with an example of serious disease, where opportunities have been missed, it is unfair to talk might-have-beens to the patient, although one may with relatives. Often enough, however these people are striving for something which is worthy of respect although in a foolish way In the good faith of the healer it is hard to believe. A friend of mine told me that his father a Scots Minister once said "God forgive me, but I would rather be a knave than a fool."

The medical profession has little opportunity for serious discussion with believers in unorthodox systems of treatment. There is no common language between us. As a serious contribution I once wrote the fable which follows. But I am not unmindful of the words of Sir Thomas Browne "Every man is not a proper Champion for Truth, nor fit to take up the Gauntlet in the cause of Verity"

The Fable of The Superior People

Now when civilisation had progressed a long way both in good and evil, there developed a sect of people, who were a little bit superior to the rest. They were kind and cheerful, with many excellent qualities but most of all they took pride that no sickness ever touched them. This was the foundation of their faith to abolish illness by believing that matter was unreal, and prove their proposition by saying that with this assumption illness vanished, and therefore it was justified.

And a certain man came to one of their meetings, complaining of great pain in his side so that he thought he had cancer

"But there is no such thing as cancer" said The Superior People.

"I see," said The Man. "Then I cannot have cancer"

"No," said The Superior People. "You cannot."

And The Man went away and returned next week.

"Well?" said The Superior People.

has put something back into place which will make recovery possible. Or perhaps, if the accident has been in the hunting-field, there will have been a five-guinea fee for an osteopath who practises the same philosophy and method. These things have no particular significance. I was interested to read of this identical technique of manipulation first and diagnosis afterwards, in a book published a hundred years ago

When, however, some serious disease due to natural causes has been treated by an unqualified practitioner or with some spiritualistic mental means, the doctor may be in a difficult position. I think he should be sympathetic with the patient. With the relatives he must use his own judgment. Of the unorthodox practitioner it is best to see nothing I have once come across a "Healer" in a patient's house. I thought the patient and the relatives were well-meaning people, but I had doubts about the good faith of the healer—as the Irishman said, doubts, almost amounting to certainty He had a shifty way with him. It seemed to me that he must have had a good deal of self-assurance to be taking these people's money but when I drove him off with a few well-chosen words he showed no courage.

It is no concern of the qualified medical practitioner to cover the legal side of these affairs, although he should discuss the question with the most responsible relative. If it comes to an inquest, however, the official report does not as a rule contain much wisdom or dignity A certificate of incapacity is more interesting I heard the other day of a woman, under the care of a healer who at the end of a week asked a doctor for a sickness certificate, which was refused. I think this was reasonable.

It takes all sorts to make a world and one has to remember that these people may look at things from an unusual angle. Some may have been through an unfortunate experience where medical science was at fault—such as a diet limited in carbohydrate when the condition was renal glycosuria. I knew one example of this mistake, many years ago which resulted in a woman taking up the most popular form of mind or spiritual healing, in which it is held that "part proved is all proved." To be able to believe this suggests a mind which would conclude that one medical error proved the futility of all medical knowledge.

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"Well!" said The Superior People.

'It is wonderful," said The Man. 'My pain has gone. There is no such thing as cancer"

' When you have our faith,' said The Superior People, "you cannot be ill for only Mind exists, matter is unreal.'

"I see," said The Man. "It is marvellous How I wish I had held your faith before."

And The Man walked home, thinking of Mind only so that he was knocked down by a motor car and taken to hospital. He was examined by a surgeon, who pronounced his leg broken. "I must put it in splints," said he.

"But it cannot be broken," said The Man. "I believe in Mind only there is no such thing as matter'

' It is a free country" said The Surgeon. "You may go home, if you wish."

'But I cannot walk,' said The Man. "My leg gives way'

'Well, well," said The Surgeon. "I will admit you - and put on the splints. If your leg is not matter, my splints won t either" And he smiled, as if he had said something witty And The Man passed a painful, sleepless night, and sent for the chief of The Superior People next morning

"*How is this?' said The Man. My leg hurts. I cannot walk* and The Surgeon says I have broken a bone. I do not believe in your faith any more.

Dear me," said The Superior Person. 'How unfortunate. But we have not told you all. You will feel better when you understand. Bones are sometimes broken. Such things could not be if all the world had our faith but there are certain evils, one of which is a broken bone which the world in general believes in, and doctors more than anyone. And, because their belief is so strong we have to admit that fractures occur but some day we shall abolish them, when our faith is wider and more perfect.'

"I see,' said The Man. "It is rather disappointing but my broken leg is really caused by the unbelief of the world at large and by this surgeon in particular who put the splints on. I should like to break his neck. It might teach him a lesson"

"When you have more faith, said The Superior Person, *you will be more calm. I, for myself, do not believe my leg* could break."

"I should like to try and break it," said The Man.

"Poor fellow" said The Superior Person. "However your case is not so very bad. I will go home and give you absent treatment; for now that The Surgeon has set the limb we can heal it for you by this absent treatment. Come to our meeting-place in two months time and tell me if I do not speak the truth."

And the weeks went by and the pain ceased, and the splints were removed, and The Man came to the meeting-place, and he said. "It is wonderful. First you cured me of cancer and now you have healed my broken bone. But I have been thinking. If the want of faith of the outside world lets evil occur even unto us, why do we not go away to some small world of our own, where all evil and sickness may be abolished."

So The Superior People thought about it and decided to go to some island, where there would be no faithless.

Now The Man made a Friend in hospital, who was attracted towards The Superior People, because, although he was quite well, the doctors called him a typhoid carrier. And The Man's Friend asked if he might come, too. And The Superior People said "There is no such thing as typhoid." So The Man's Friend said "Then I cannot carry it?" And The Superior People said "No, certainly not."

So The Man, and The Man's Friend, accompanied The Superior People across the seas. And, if any were sea-sick, we have no record of the fact.

And time passed, and the fable ends with a conversation between The Man's Friend and the doctor of a certain ship which happened to call at the island.

And The Man's Friend said "Then all these people are ill, and many have died, because I brought the germs of typhoid fever to this island?"

"Yes," said The Ship's Doctor.

"But I thought there was no such thing as typhoid fever at any rate for those who had no fear and believed in Mind only and that matter was unreal," said The Man's Friend.

"It is all a question of words," said The Ship's Doctor "The Superior People, I believe, say that God made everything. Let us put it, He made man. Did He not, then, make microbes? A

microbe is as real as man, and they are far more numerous. Marcus Aurelius accounted his body a small thing in time and eternity compared with his soul but he did not call it unreal."

'I see,' said The Man's Friend.

"These people at home," said The Ship's Doctor "were protected from epidemics by medical science."

"But are they not right about fear?' said The Man's Friend.

"There is a great deal in it," said The Ship's Doctor "And the best doctoring drives out fear"

"Is there not much in faith healing? said The Man's Friend.

"Of course,' said The Ship's Doctor Much of the healing art consists of putting the patient in the right state of body and mind, to get well. But we are all on our last journey from the cradle to the grave and health and disease are words, like hot and cold, to some extent relative terms.

'Then The Superior People have some truth, but not the whole truth?' said The Man's Friend.

"Do you think there is such a thing as the whole truth in this world?' said The Ship's Doctor 'But, if I were to preach a sermon on the search for truth, I should say it began with humility"

'And are The Superior People wanting in humility?" said The Man's Friend.

"Well,' said The Ship's Doctor "Their philosophy claims to rise above what the rest of us regard as the laws of nature which many sects have claimed for the soul but no one else has denied that the body is subject to natural laws.

'I wonder' said The Man's Friend, if they would deny your statement.

'You cannot argue with them," said The Ship's Doctor 'Words with ordinary meanings have unusual meanings for them. I have sometimes thought they had no meaning at all. In a serious attempt to refute their philosophy I should be tempted to try my hand at a fable.

Alcohol in its Place

> There is a notion, common among hobbledehoys, that "experience" can be widened by a loss of self-control. They assume that every novel step which you take must needs increase your experience and not diminish it. Their algebra of experience recognises only the positive sign. They reckon with no negative experiences. You always come off a net loser. Your faculty for delight perceptibly enfeebled.
>
> *The Right Place.*
> C. E. Montague.

He who is presumptuous enough to air his views about any habit is liable to receive criticism which has some personal bias. Be he a total abstainer, taking pride in the rudest of positive health, he may be a poor advocate for teetotalism, because there may be others who think that a little alcohol would improve his character

The spirit which says There but for the grace of God goes myself, is not one of frank humility It may be attractive and encouraging to listen to a man, without false modesty recounting those things which he can accomplish, but criticism is inevitable of one who claims that something or another makes him what he is.

I believe, however, that alcohol is dangerous stuff and that a young man should pick his way with care, lest he take more than is good for him. I once heard the statement from a temperance platform that when a man thought he could not do without alcohol, it was high time he gave it up. I would agree although perhaps I would excuse him if he admitted the limitations of old age in the spirit of which Dr John Wallis wrote to Samuel Pepys, "Till I was past four score years of age, I could pretty well bear up under the weight of those years but since that time, it hath been too late to dissemble my being an old man." It was a young lady in Punch who said "we can only be young once, or

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is it once too often." It is, however one of the laws of nature that youth is prolonged by abstemious habits.

It is a long time since I answered the question on a life insurance form What is your daily habit with regard to alcohol? If I must confess, the answer was one half pint of beer I do not suppose the life insurance companies place too much reliance upon the answers to this question. If the medical profession, however, is being called in to advise on matters of health, it would make a good question to ask Under what circumstances, during your lifetime, has it been difficult to keep to your usual abstemious daily habit?

There was once a picture in *Punch* of one man clapping another on the shoulder with the remark, "I say, Brown, old man, come and have a drink. To which came the response, "I am afraid you've made a mistake. My name is not Brown but may I have his drink?"

Now throughout life our concern will often come from something deeper—that we wish to refuse a drink when it is legitimately offered. The particular experience of one man may be a false basis from which to draw general conclusions, but with this limitation admitted, it may be of interest to review the changed customs during the last fifty years.

When I left school, alcoholic drinks in a private house were confined to the dining-room table, or were found in the smoke-room occasionally Perhaps a whisky and soda might appear before bed-time, but a youth was not expected to join in this "night-cap" Even on the occasion of a ceremonial dinner it was unthought-of to have a short one during the *mauvais quatre d'heure* before the butler or maid announced that dinner was served. Under these circumstances it was not conspicuous to be a total abstainer—which I think was important for young girls. It was no one's concern but one's own what drink was taken with the meal. It was possible to refuse without exciting comment. Or one could just take one glass of anything that was going It seems to me that this is changed, since it has become the custom to serve drinks in the lounge or drawing-room. It is also altered by the mixing of the sexes and the generations.

Much of this applies to a good hotel. Instead of two men slipp-

ing off to a quiet corner there is a round of drinks beginning with mother I think this is unwise. She might formerly have shared a bottle of wine with her son at dinner but of this he was free to choose. An abstemious Scotsman friend of mine, crossing the Atlantic, ordered a whisky and soda for each of us, with the remark that nothing gave the same feeling for less money There is truth in my friend's levity and it is certainly true, that the effect produced by one whisky and soda, later in life, is directly related to the number that have been swallowed in the years preceding. It seems hardly decent to talk of a drink producing a particular feeling, but it is the sober truth. It is this which a mother should remember when she stands her son a drink in the lounge. At her age he will want two or perhaps three.

For a young man to walk his individual way through life is wise enough and fair but occasionally with alcohol and companionship it may seem almost like taking advantage of one's friends, to keep intact such wits as one possesses, when all around are becoming rather clouded. There are no rules, but the thought should be there. *In vino veritas* contains more than a grain of truth. To have been present at a celebration without joining in to the full, leaves a man with the feeling that he has not exchanged confidence for confidence. Or of course he may find that he is in the wrong company altogether—that is another story Sir Thomas Browne says: "He who must needs have company must needs have sometimes bad company Be able to be alone."

I have always been grateful to anyone who extended the invitation, "Come and have one with me." Although it has been on very rare occasions that I have accepted. I resent, however the question, "What's yours?" It is an unwarrantable assumption that mine is anything at all. I may want a round of golf, or a free ride on the scenic railway But it seems to me, that these two forms of invitation are a good illustration of a young man's problem. He should walk warily into a situation where anybody can say "What's yours?" As a general measure of education, I think the medical profession might advise that the time, and more particularly the place, where alcohol is served should revert a little towards what they were a generation ago Drinks were served in certain well-defined rooms. There were primary

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thing else. One could sail the boat while the others sang. I think it was an easier situation for an abstemious man to handle, than is, for example, the smoke-room of a steamship in these later years, when the company is mixed.

Of course, when one thought as a child, the danger of drink seemed to be that a cabman might fall off his box, that the wagonette driver might topple his party into the ditch, that the gamekeeper might beat his wife, or any such exciting tragedy might be recounted. These were events with a moral. I am not thinking of morals now. Some people wore a blue ribbon. Some people "signed the pledge"—some of these broke it. I believe the temperance movement of the late Victorian days did very good work among people, some of whom led very drab lives and frequently took to drink by way of—I will not say "escape," because in those sterner days the teaching was to stand up to life and to win self-respect—but by way of change.

A medical student might think of disease. I remember a bookmaker in Guy's Hospital, who said he supposed he had used his liver up and that he could not get another. There was peripheral neuritis. There was loss of memory for recent events—I do not think we used the term Korsakoff's Syndrome. Perhaps we had in the wards a case of phthisis due to a constitution undermined by drink. Certainly we knew from practical experience that the alcoholics with pneumonia usually succumbed. In more recent years there is our knowledge about vitamin B deficiency in relation to the heart and, I think we must add, that short drinks on an empty stomach are a disposing cause of gastric ulcer. We see less, however, in the way of cirrhosis of the liver and peripheral neuritis as the result of alcohol. It takes our minds back to the days when morbid anatomy was the foundation of the physician's education, to recall the story of Osler's old friend, a newsvendor in the streets of Baltimore, to whom he once handed an overcoat, and to whom he had given many warnings about what alcohol was doing to his liver. When the bibulous old fellow died a will was produced to the effect "I bequeath to my friend William Osler his coat and my hob-nailed liver." About this kind of disease there is some element of judgement.

From my own experience I should say that I have seen a fair

and local, but nowadays they turn up like malignant disease in secondary places

By time I am not thinking of the closing hours of a public house or club It is, often enough, unsatisfactory that a pedestrian or a golfer cannot quench a well-earned thirst after his exercise, whereas his more sedentary fellows may drink round and about lunch-time. I have seen, in recent years, young men welcomed in a private house in the morning with a glass of sherry In my experience this is a new custom, but if we concentrate on the place in which it is served we shall cover most of the problem. I think it should be in the dining-room or at a well-defined bar In which case we know what to expect.

In my time at Guy s there were some Bob Sawyers who frequented the Ship and Shovel public house. There was a barrel of beer in the Dressers Room at the Front Surgery We could order what we liked with meals in the dining-room of the Students' Club, but I do not remember any alcohol in the smoke-room or in the Residents Common Room. We did not have anything in our own rooms. I remember that some of us received a sample bottle of an Australian wine, soon after we became duly qualified doctors. I believe it ' toned the blood," or did something equally important. We had been advised so frequently to taste our medicine that we felt in duty bound to sample this—which brings me to the point. In the Common Room there were no glasses, so that we drank this purple fluid out of coffee cups. I am only discussing changed customs I am not moralising We did not need to make any decision with regard to sherry in the Residents' Common Room because it was not there.

An old lawyer friend of mine, once told me that, long ago, he and seven other young men went for a holiday on the Norfolk Broads. They entered a public house where one of the brightest of these boys called for sixty-four whiskies and sodas. When the landlady demurred as to the question of whether she could provide so many glasses, he said, ' Oh, eight glasses will do, but I thought you had better know at the outset. That is an old story We shall never solve the question of treating It does the past no credit but it was possible, once in a way to be out with such fellows and slip off leaving them to it. One could pay for some-

whose physical condition is slowly deteriorating. To be drunk in charge of a motor car is a misadventure to die of alcoholic cirrhosis of the liver is a tragedy but the misfortune which overtakes the greater number of those who take too much alcohol is to lose the real joy of indulging themselves in outdoor physical pleasures. Or perhaps for other pleasures, such as literature or music, they may *find their "faculty for delight perceptibly enfeebled."*

I suppose one ought to be conversant with the question, as to which periods in our history would show up the greatest and least amount of alcohol drinking, but I am ignorant of where to find reliable evidence. Sydenham spoke of "the terrible habit which we have amongst us of swilling spirituous liquors." Some two generations later in 1725 the Royal College of Physicians petitioned the House of Commons against "the pernicious and growing use of spirituous liquors among persons of all ranks and both sexes." The outlook seems black, but nearly a hundred years later the nation survived the period, which Arthur Bryant calls *The Years of Endurance* and it has stood up to two wars of undreamed of strain in this twentieth century In Trevelyan's *English Social History* we read, "But when Queen Victoria died, drinking was still a great evil from the top to the bottom of society more widely *prevalent* than in our day but decidedly less than when she came to the throne."

If the profession is called in officially to advise the nation about how to keep well, the advice with regard to alcohol will be one of the most difficult *questions. Legislation never gets us very* far. Forbidden fruit is a temptation. Education is the only satisfactory method. History would suggest that the nation as a whole takes no great harm, but there is evidence that first-class individual specimens of humanity may come to grief. There might be those who would argue that it is the weakling that goes under from this cause and that we might as well get rid of him, which to some extent is true but from the experience of my observation, I should say that a vivid imagination, a high degree of generosity and personal charm are qualities which make alcohol a danger.

The word "escape" is a new label for a very old notion. We know all about the dangers of alcohol in that connection. In a

number of those who have got into a social scrape through alcohol and rather fewer who have died because of drink, but I have seen a large number who have thought that if they steered warily between these two disasters they would not come upon the rocks themselves. *It seemed there was no one to warn them* that steady but moderate drinking would bring a "slight flavour of decay" (as found in Deacon Brodie's vehicle) many years before old age was due. I once played a round of golf at Hunstanton with a schoolmaster who told me that a friend of his, sitting in the club-house, put his glass down empty and said that he had been playing golf for twenty years and had never once played his real game. He had the right spirit there. I have a friend who says, 'Golf's like life, you start with such bright hopes.' A little of something that encourages, once in a way may be quite beneficial.

When a young man goes for a holiday he may be faced with a real difficulty if some nice people in the lounge seem to think he is a kill-joy because he does not share in their festivities. But why should they kill his joy, if he gets it by a swim before breakfast with all nature at its best. Suppose he would rather munch some sandwiches in the shelter of the rocks, just below the top of a mountain, than have a drink and first-class lunch in an hotel. I would not say that *he* cannot enjoy his open-air pleasures for a few years, and join the loungers as well but he will not get the same pleasure out of them and a time comes—sooner than he may realise—when he must choose one or the other If he elects for the top of the mountains, he need not stay there—though he will as long as he can. But if he chooses the lounge there he will almost inevitably remain.

You may hear one such elderly lounger telling his children about some exploit of his youth on Snowden, or perhaps how he climbed the dark brow of Helvellyn, risking his life and limb up Striding Edge. As the story grows, it almost seems that he might have scaled the Matterhorn without a guide. If he had kept to the top of the mountains, however he could have retraversed that same old family scramble with his children.

It is one of life's little ironies that the man who frequently hears the words 'Here's your very good health," is probably one

concluded with the words, "the parson preached three Sundays running on the sin of beer-drinking, to children who'd *never* 'ad any and wimmen who couldn't get it."

I am only discussing the change of the customs with the times and perhaps a little bit with altered circumstances due to what is called the emancipation of women. One or two mothers have told me that sons will not take advice. There is a time for everything. When Lord Chesterfield wrote to his adopted son, "Fuyez le vin, car c'est un poison lent mais sûr" it is quite probable that the warning was not heeded but perhaps a father who has just won a foursome with his son, or is sitting with him on the top of a mountain, is in a better position to drop the right hint. C. E. Montague in his volume *The Right Place* when discussing abstemious habits, uses the words "This is no tract upon morals. It is a handbook of pleasures."

volume called *A Medical Sketch-Book*, published a hundred years ago there is the story of a Lancastrian who was frequently brought before the magistrates for drunkenness. One day a magistrate asked for an explanation. He received the reply "It is the quickest way out of Manchester" In modern phraseology—escape. Samuel Johnson was enlarging on the subject that man is never happy at the moment. Someone had quoted, 'Man never is but always to be blest.' Johnson concluded—"never happy but when he is drunk." I can remember a schoolmaster who went to the railway station every Sunday night (stations were open then) to see the express trains arrive and depart. Steadily, as the evening progressed, he continued to drink in the refreshment room till his spirit travelled with the passengers. He disliked his work and his home. But he lost his job and could not get another It is a very old story but sometimes worth bringing out.

It is a good thing for the generations to mix as they do now and as they did at times when I left school. I think, however, in those former days, that Old Father William drank a peg or two in which he did not expect the young man to join. If Father William incessantly stands on his head, or turns back-somersaults in at the door there is no harm done, so long as he does not disturb the rest of the family But he must live up to the tradition that it is his duty to explain that he did not indulge in these frivolities when there was reason to assume that he had a brain which might be injured or limbs worth keeping supple.

Mrs. Battle believed in a clean hearth, a clear fire and the rigour of the game when she sat down to whist. The Victorian housewife, who knew how to specialise in making a home comfortable, believed in a place for everything and everything in its place—although she expected some derangement when her sons came home. She knew that it was possible to be so strict with boys about alcohol that they might resort to clubs or public houses but I think she was wise to keep alcohol in its place, which was the dinner-table. If they did go into a public house, occasionally they met only their own sex. When the old man outside the Cauliflower Inn told the story of *A Garden Plot* (W W Jacobs, 1901) he described the silver teapot, which was the first prize at the Flower Show, lying in the road smelling strongly of beer and

but it is of interest if two vessels contain the same ingredient. Mr. Justice Holmes once wrote to his friend Sir Frederick Pollock, "I told you, I believe, that late in life I discovered Montaigne and have read him with enormous delight. The beast knows a lot of things that I had fondly hoped had been reserved for me."

My generation, who, at school, tried hard to perfect our handwriting by copying out such maxims as "Honesty is the best policy" were enchanted with the healthy philosophy and charm of Robert Louis Stevenson, who could hint at something rather less mundane. We appreciated the way in which he could go one better than some staid philosopher as for example, "Benjamin Franklin went through life an altered man because he once paid too dearly for a penny whistle. My concern springs usually from a deeper source to wit, from having bought a whistle when I did not want one."

And then there was Rudyard Kipling, not only telling new tales, but a master of ideas and phrases that would remain in the mind. Or to use his own expression—"words that may become alive and walk up and down in the hearts of his hearers."

No doubt it would be possible to turn up a Dictionary of Quotations to find a thought which fitted any theme but, for these reminiscences, it seemed best to draw upon old friends of all of us, like Boswell, Oliver Wendell Holmes, Sir Thomas Browne and Dickens.

I have been grateful in my time to a number of people who have recommended some books, although occasionally this may appear to set a task. For this reason it may be more attractive to have a hint put before one, which tempts towards the seeking of a better acquaintance. Perchance this might apply to a reference of mine from William Penn or C. E. Montague.

Those who see wisdom in every page of *Alice in Wonderland* and *Through the Looking Glass* will understand my allusions. We all know that *Punch* is "not as good as it used to be—and never was" but there is a history of medicine to be gleaned from the volumes, and we should not value Mr Punch so much for wit as for his kindly wisdom.

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> Shall we for ever make new books, as apothecaries make new mixtures, by pouring only out of one vessel into another?"
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PERHAPS it is unreasonable to use the words "make new books" in connection with this modest offspring It was in the novel *Mr Midshipman Easy* that the unmarried wet-nurse said, by way of excuse to the admiral's wife, "Please, Ma'am, it was only a very little one."

In writing a scientific article, we collect first our own material and then read what others have written. The simplest method is to make notes on separate sheets under various headings. In so far as there be any original work it will stand out from the rest, even if it is no more than confirmation of someone else's study

It is hard to know what is original if one quotes from books which have been read many years ago or ventilates some idea which has been long in the mind. There is a lesson in the *Story of My Life* by Helen Keller (But perhaps she is forgotten, although Mark Twain, in one of his most serious moments, said that the two most interesting characters of the nineteenth century were Napoleon and Helen Keller) She was blind, deaf and dumb but educated with the utmost patience. She produced a story for publication, which she and her teacher believed to be original, but the event proved that it must have been stored in her mind as the result of having been read to her some years previously

Some things must get buried in the subconscious mind which come to the surface as a fresh idea. Oliver Wendell Holmes says that "a thought is often original though you have uttered it a hundred times. It has come to you over a new route, by a new and express train of associations."

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When "apothecaries make new mixtures" they should have regard to taste. But palates vary and time was when a patient might ask the doctor for a little less peppermint or rather more ginger. Perhaps it will suffice if the essential ingredients are honestly meant for the best. Where there is colouring matter in the way of fable or of fiction, it is seriously intended. If some things are difficult of solution, or do not readily mix with others, one hopes that sediment and froth have been avoided and that the mixture, taken as a whole, is something better than a placebo and more convincing than an alterative.

I once went home to lunch with a fellow student. His father came into the room, shaking his head over a bottle of medicine which he had just made up. He said he was treating a case of pleurodynia for which he was dispensing a new mixture and there had come down a precipitate. He shook his head over us because we had passed an examination in pharmacology but could not advise him how to make a clear solution but he concluded, "Never mind, she will have to shake the bottle."

Kipling said at the Royal Academy Dinner in 1906 "Now we desire beyond all things to stand well with our children, but when our story comes to be told we do not know who will have the telling of it."

One who is no sort of apothecary at mixing words need not fear that a few reminiscent thoughts will carry any responsibility to another generation. At the best it is probable that my preparation is no better than a decoction which solutions, the textbooks tell us, should be fresh prepared as they readily decompose. But had it been possible to catch the right spirit of medical practice during the fleeting occasion, from about the time when the South African war began until V-J Day in 1945, it would have been reasonable to conclude by saying that the facts change but the true spirit does not alter

temporaries, but it was his writings with which I was familiar although I have also drawn upon the *Memoirs* of Sir James Paget. For the next generation there is Harvey Cushing's *Life of Sir William Osler* and Sir William's own addresses. A young doctor *once asked me what had Osler done. The answer is that he both* lived as a physician and practised the art in such a way that those with whom he came in contact could not fail to learn something *of the right spirit and have a faint hope that it might live on in* them.

Of medical writings between the two wars I have quoted from *The Collected Papers* of Wilfred Trotter Although I am grateful for the friendship extended by many physicians of this period, from whom I have learned much, I cannot tell whether *these thoughts and reminiscences would receive their appro-*bation.

In using detective fiction I find that I am in good company Mr W M. Mollison in a paper entitled *Teaching* has used similar material. And in using fiction of any kind one has the liberty of touching on one aspect of a subject, without committing oneself to the assumption that there is no other

No apology is needed for cricket quotations. We do not all play but it is still our national game, and the most famous cricketer of all held a medical diploma.

And how about *The Life and Opinions of Tristram Shandy Gentleman*? I think his opinions, in 1759 may be used as an illustration that the wisdom of philosophers, before and after, all down the ages proves that human nature does not change. The same thoughts may keep cropping up and perhaps he who first expressed one of them in writing may have picked it up from someone else who spoke it.

John Ruskin could write ' tell me what you like and I will tell you what you are." Did he get it from *Tristram Shandy* where we read 'but in a word, I will draw my uncle Toby's character from his Hobby-Horse' ?

One of my teachers at Guy's used to say· Never believe a man for what you know he cannot know " *When Mr Shandy senior* read aloud the words, 'The whole secret of health depending upon the due contention for mastery betwixt the radical heat and

the radical moisture—You have proved that matter of fact, I suppose, above, said Yorick. Sufficiently replied my father" Which teaches the same lesson, and also gives a hint that he who propounds some hypothesis may be impatient of criticism.

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Printed for H. K. Lewis & Co. Ltd. by
Hazell, Watson & Viney Ltd., London and Aylesbury